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The OIL WEEKLY

May 6, 1927 Volume 45. No. 7

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SANDERSON & PORTER
NEW YORK

It's a Wilson

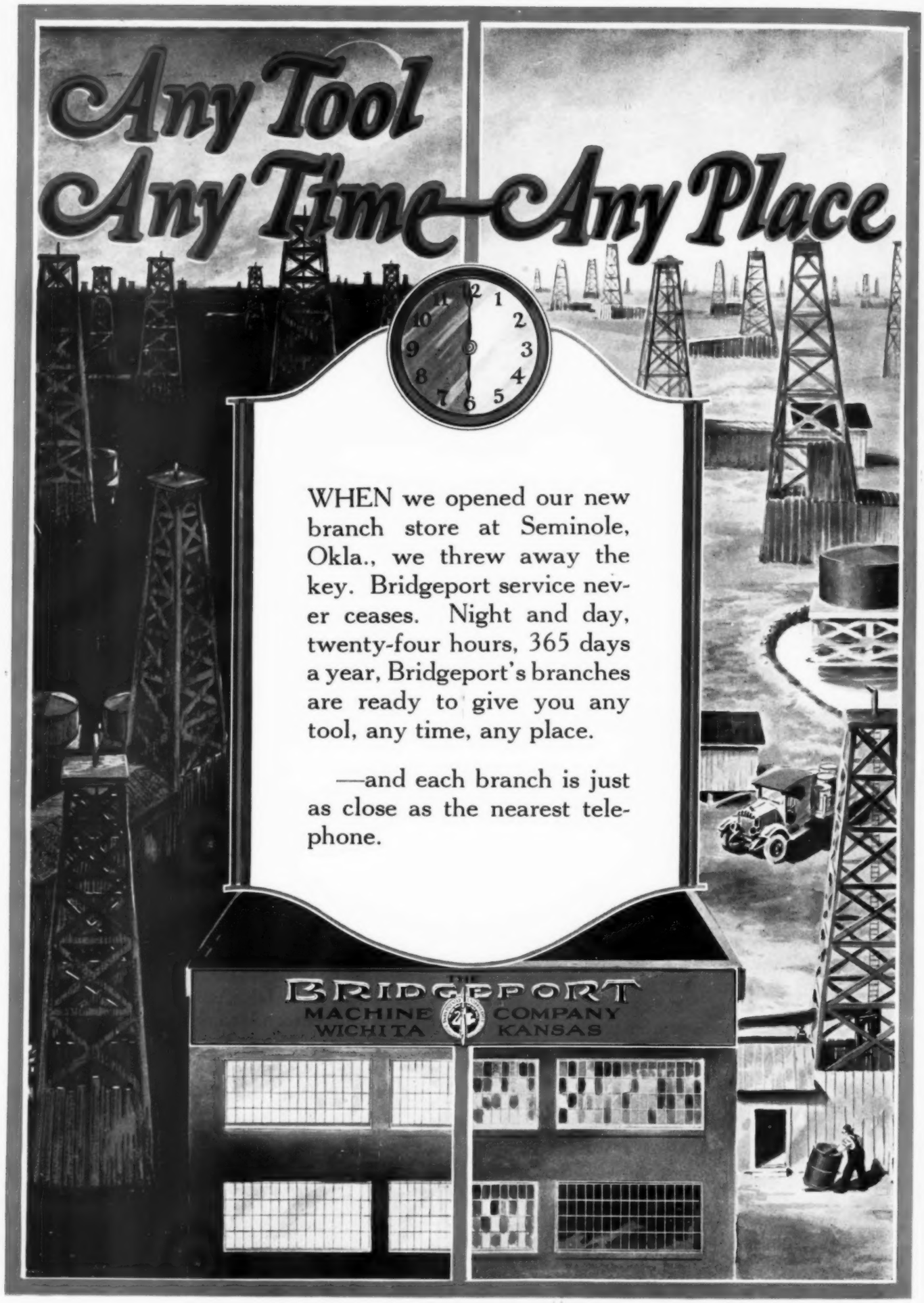
20 years
1907 1927
OF service

TWO decades ago Wilson & Willard Manufacturing Company was established, dedicated to service in the Oil and Gas Industry. The original determination of Wilson Oil Tools Corporation to offer the most dependable specialty tools has been faithfully maintained and the esteem and confidence of thousands of Operators throughout the World has been conclusively won.

Elevators, Tongs, Underreamers, Rotary Drive Bushings, Circulating Heads, Slush Pump Valves and Pistons.

SALES OFFICES:
Tulsa, Okla.,
409 Atlas Life Bldg.
Houston, Texas,
219 Post-Dispatch Bldg.
Amarillo, Texas
1501 Polk St.

Wilson Oil Tools Corp.
DISTRIBUTORS FOR
Wilson & Willard Mfg. Co.
Factory and Headquarters Office
2301 East Vernon Ave.
Los Angeles, Calif.


Any Tool
Any Time—Any Place
WHEN we opened our new branch store at Seminole, Okla., we threw away the key. Bridgeport service never ceases. Night and day, twenty-four hours, 365 days a year, Bridgeport's branches are ready to give you any tool, any time, any place.
—and each branch is just as close as the nearest telephone.
THE BRIDGEPORT
MACHINE COMPANY
WICHITA KANSAS

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

SAND ... TER
MAY 9 - 1927
REF'D TO
ANS'D

CHAMPIONS

The qualities that make for championship in the ring—ability to take punishment, withstand abuse, and "deliver" in the face of grueling circumstances—are precisely the qualities that make for championship in the field of oil industry pumps.

Being modest, we hesitate to claim the latter honor—but we *are* building another 50 per cent addition to our plant.

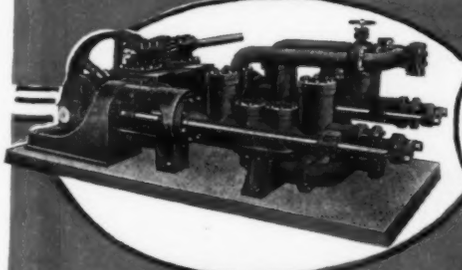
May we send you our catalog?

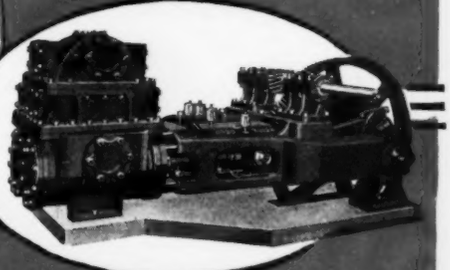
GASO PUMP & BURNER MFG. COMPANY
Tulsa, Oklahoma

Two Unusually Popular Members of the GASO Family

No. 1012 [at left]—GASO Horizontal Duplex Gear-Driven Discharge Pump. Capacity, 130 to 204 gallons a minute against pressures from 700 to 900 pounds per square inch.

No. 1018—GASO Horizontal Duplex Gear-Driven Suction Pump, available in three sizes—6, 8, or 10 x 18.





GASO PUMPS
for every oil industry need

Emsco Steel Equipped Wells Are Safe

Manganese Steel Sheaves—6' Alloy Steel Pin. Hardened and ground. Rope Grooves made to A. P. I. Specifications.

The new Emsco Catalog shows the complete line of Emsco products. Write for your copy now.

Emsco Quadruple Roller Bearing Traveling Block

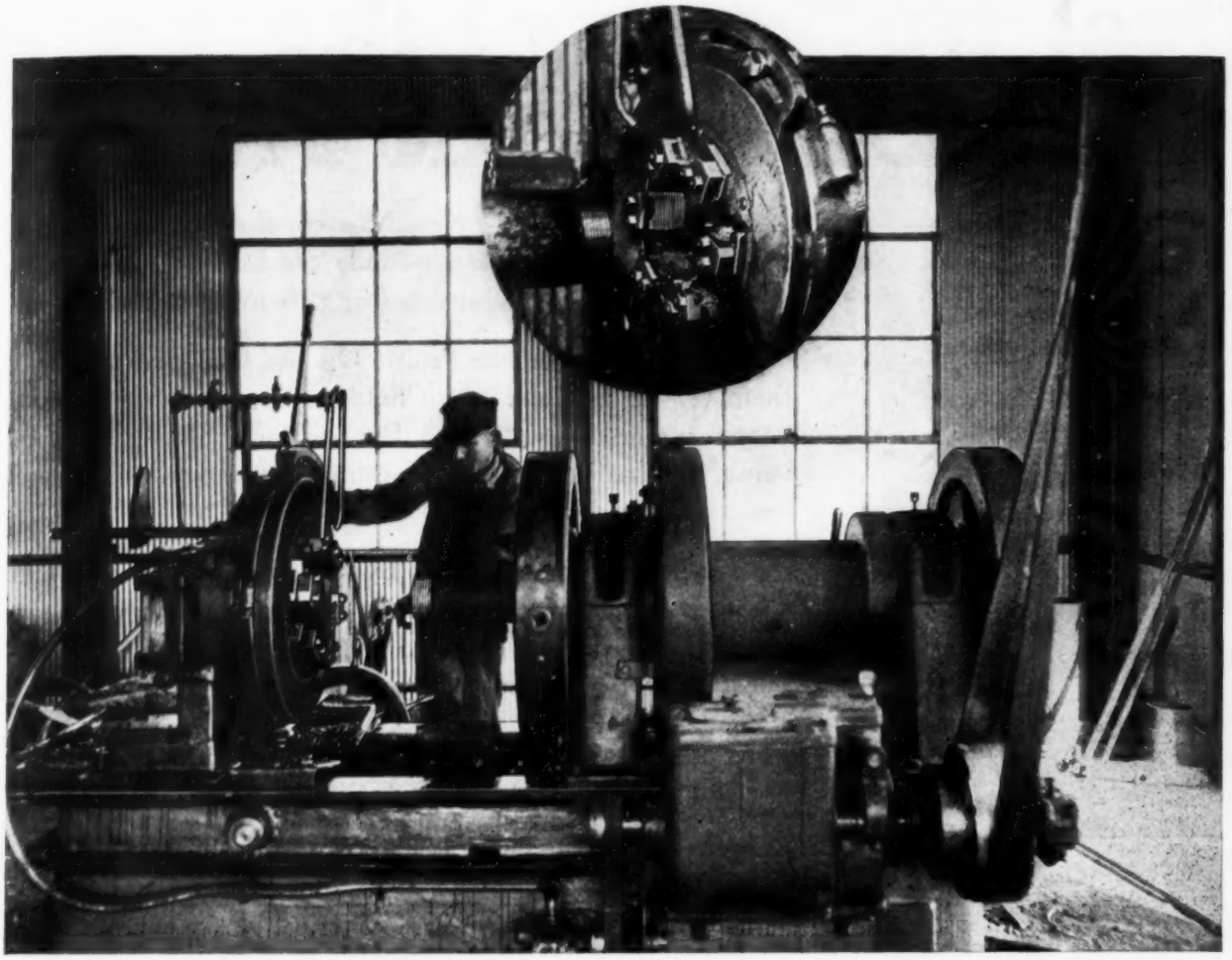
MANY new and important improvements have been incorporated in this new Emsco Quadruple Roller Bearing Traveling Block. Symmetry of design, combined with strength and proper distribution of weight, make it one of the most perfectly balanced blocks in the oil fields today. The absence of nuts, bolts or other projections to interfere with proper and fast raising or lowering of the block is immediately apparent.

The Emsco Block is fully guarded and complies with all safety regulations. In addition to the regular guarding of lines it is equipped with a special belt facing which forms the slots for the wire lines to pass through—a safety feature of utmost importance. Through this construction the slots are reduced in width, permitting the line to run closely in the grooves, as contact with the belting does not rub off particles of steel, a common fault of all other types of guards.

EMSCO
A Complete Line of Better Oil Well Equipment

EMSCO
Derrick & Equipment Company
Los Angeles, California
Houston, Texas
New York Office: 150 Broadway

EMSCO
A Complete Line of Better Oil Well Equipment



When Your Reputation Hangs by a Thread

Good threads of uniform taper are absolutely essential for pipe and casing. Thousands of dollars of expense and waste can be caused by a badly cut thread. Hoffman and Page of Eastland, Texas, have installed a 6″ LANDIS Pipe Threading and Cutting Off Machine to insure satisfactory threads and to maintain their reputation for good work.

This 6″ LANDIS is of our latest design. It has a gear box and single pulley drive. All gears are cut from steel and run in an oil bath.

A reversing mechanism is located in the gear box and is controlled by a lever located conveniently for the operator. It is not necessary to cross belts or throw a reversing switch.

The front and rear chucks have universal adjustment. The movement of one jaw operates three jaws.

The rear chuck is equipped with flange grips.

The front chuck is lever operated and quick acting.

The LANDIS long life tangential chaser is employed.

Take advantage of this powerful, efficient and economical machine. Insure your reputation for good threads by installing a LANDIS now.

When do you want to talk this over with our representative?

At least write for a catalog

LANDIS MACHINE COMPANY, Waynesboro, Penna.
DETROIT OFFICE: 5928 SECOND BLVD.

LANDIS TRADE MARK.

Say you saw it in The OIL WEEKLY

Steel Buildings Like These Are Used in the Field!

30'x40' is the width and length of this pump house. It is a Butler Ready-Made Steel Building.

This power house is 80' long, 8' wide, 30' and 18' high. This is also a Butler Ready-Made Steel Building.

The Big Butler Ready-Made Steel Building shown above is 24'x70'x18'. The other is 24'x30'x8'. They are used as warehouses for storing pipe, fittings and other items used in production.

Down in oil fields of New Mexico, the Malgamar Oil Company is using Butler **Ready-Made** Steel Buildings. In Texas, the Big Lake Oil Company is using them.

Out in Wyoming, the Prairie Oil and Gas Company is using them. And in these same fields and elsewhere where oil is keeping men busy, Butler **Ready-Made Steel** Buildings are being used as power houses, pump houses, warehouses, gasoline plants, etc.

Fire hazards are reduced by the use of Butler Buildings. These steel structures protect the belting and machinery around the drilling from the sun and bad weather. They protect supplies. They guard the lives of men.

Made of 24 gage galvanized steel with deeply drawn paneled corrugations, these Butler **Ready-Made Steel** Buildings come to you complete, ready to erect. For all the needs of oil men—in field and elsewhere—Butler Buildings are convenient and economical.

Write us or see your nearest Butler dealer. Complete catalog of these buildings sent on request.

These Dealers Handle Butler **Ready-Made** Steel Buildings:

M & V Tank Company, at Wichita Falls, Olney, Nocona, Cross Plains, Albany, Cisco, Isom, Pampa, Brownwood and Amarillo, Texas.

Drane-Humphrey Co., at San Angelo, Big Lake and McCamey, Texas, and Carlsbad, New Mexico.

Drane Tank Company at Tulsa, Seminole, Hallett, Shawnee and Holdenville, Oklahoma, Eldorado and Madison, Kansas.

M. A. Trimmer at Blackwell, Oklahoma.

Southern Steel Company at San Antonio and Mirando City, Texas.

Butler & Gamble, 300 Great Republic Life Bldg., Los Angeles, Calif.

Petroleum Specialties Co., at Casper, Wyoming.

Thomas Moran, at Oil City, Shreveport and Georgetown, Louisiana.

Continental Supply Co., at Kevin, Montana.

Butler Oil Equipment Catalog is complete. It contains useful, handy information. 96 pages illustrated in four colors. Copy sent on request.

TRADE STEEL BUTLER PRODUCTS MARK

Butler Products include: Ready-Made Steel Buildings, Cans, Funnels, Buckets, Measuring Pumps, Truck Tanks, Underground Tanks, Storage Tanks, Bolted Tanks, Etc.

Butler Manufacturing Co.

Kansas City, Mo. Minneapolis, Minn.

Foreign Dept. Kansas City, Mo.

Say you saw it in The OIL WEEKLY

A Letter from Harry G. Nye

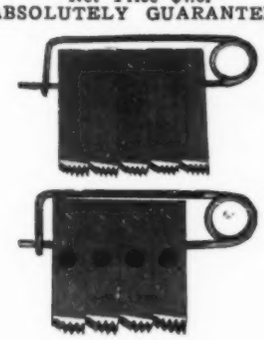
Nye Self-Locking Vise

No.	Pipe	Vise, Complete Net
00	⅛ to 2 "	$2.82
10	⅛ to 2½"	3.34
20	¼ to 3½"	5.00
30	½ to 4½"	7.33

NYE No. 51—Chain Vise
Capacity ⅛ to 2½ inches

A handy, compact little vise, possessing maximum strength, while of minimum weight. Easily carried in tool kit. Equipped with standard jaws. Having features not found in similar vises, the double lever tightening device being above the bench, rather than below, insuring faster and smoother operation.

Net Price $4.67
ABSOLUTELY GUARANTEED



Nye Chasers

Fit Nos. 1, 1A and 2 Receding Die Stocks

Each set is guaranteed in every particular. Will cut much easier than other similar dies.

No. 1, 1" to 1½" $ .75 per set net
No. 1, 2" ..... 1.25 per set net
No. 2, 2½" to 4" 3.60 per set net

Nye Drop Forged Pipe Cutter

No. 1-A	⅛ to 1¼"	$2.25 net
No. 2-A	¼ to 2"	3.00 net
No. 3-A	1 to 3"	5.00 net

To the Oil Men of the U. S. A.

Fellow Family Men:

Gaar Williams, the Chicago Tribune cartoonist, who came from Richmond, Ind., the same town I came from, that is, the same town I came from last, tells a true story of a man who drove the band-wagon of a circus, and was fired. When Gaar inquired "What for?" they told him, "The fellow drove an 8-horse team up a blind alley."

If you have ever tried to turn an 8-horse team and a band-wagon around in a 16-foot alley, you wouldn't wonder he was fired. But I got to thinking about it, and I wondered if that isn't what a lot of us do sometimes—drive an 8-horse team up a blind alley? We may be in the plumbing business, but if a plumbing shop isn't a circus, I don't know what is.

In the plumbing business, or the circus business, which are a good deal alike, except for the profits, I guess the best way to win success is to decide on one place to go, and the best way to get there. The only way to do is to pick out one street, and stick to that, and not try to short-cut to success up some unfamiliar alley.

I admit that I make the best pipe-cutting tools in the world, I might say the only real pipe-cutting tools in the world, but I don't deserve much credit for that, because that is what I always intended to. I didn't drive up a blind alley. I took it lickety-larrup right up the middle of main street. Today there are only two kinds of pipe tools: Nye's and the other kind.

I am not a wise guy. If I thought I was, I would have wound up in a blind alley long ago. I'm such a darned fool that, when I get something right, my wife says, "Who told you?" So I picked out one street—the plumbing tool business—and I stuck to that street, and kept out of the blind alleys of other lines of manufacture.

That is how it happens that Nye Tools cut so much faster and easier and last so much longer than any others. That's all I know. But I sure am a nut on that! All I make is pipe tools. But wouldn't you rather buy the Nye line than somebody's sideline?

Yours exclusively,

HARRY G. NYE

Otherwise Known As

THE NYE TOOL & MACHINE WORKS

4120-30 Fullerton Avenue

Chicago, Ill.

Note: Will see you again on Page Seven of Oil & Gas Journal, issue of March 31, 1927.

(Copyright, 1927, by Harry G. Nye. All rights reserved)

The No. 1A is the same as the No. 1 except that it is equipped with a ratchet for work where space is restricted.

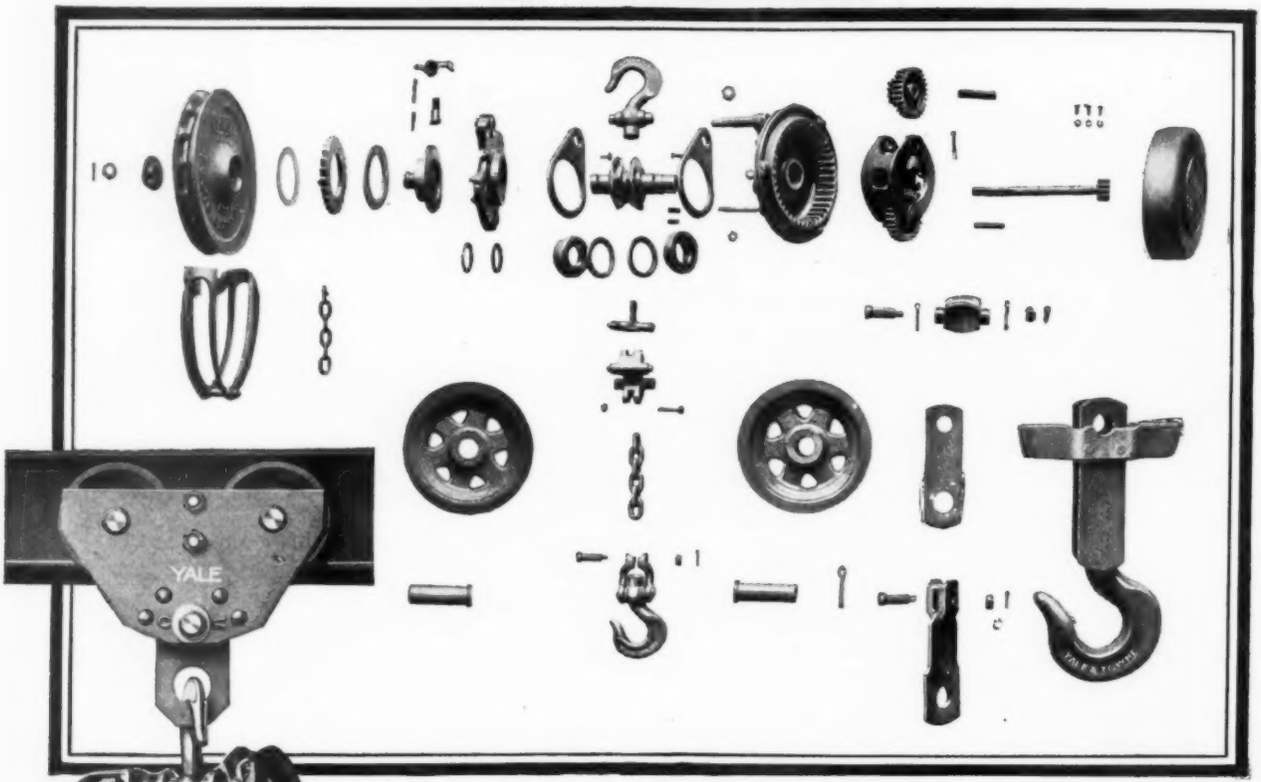
No. 1A Nye Receding Pipe Threader, complete ..$12.00 net
West of Rocky Mountains.$13.50

Nye thin blade cutter wheel, made to fit all standard makes of pipe cutters, and guaranteed against breakage in use. Made both in smooth and knurled edge.

Nye Saunders Pipe Cutter

No. 1	.....	$ 1.80 net
No. 2	.....	2.70 net
No. 3	.....	6.60 net
No. 4	.....	10.80 net
No. 5	.....	16.80 net

TRADE **YALE** MARK



Every Part of Every Yale Chain Block *is Yale Made*

The above graphic illustration shows the essential parts in a Yale Ball Bearing Spur-geared Chain Block—drop forgings—steel, malleable, bronze and grey iron castings—heavy steel and chrome vanadium stampings and die formed steel load chain.

All of these parts are Yale made in the Yale plant and the purchaser is assured that because of this he secures a chain block superior to one produced *in any other way*.

Every chain block bearing the name Yale is the result of

- Yale research and experience in the selection of materials
- Yale development of correct formulae for metal composition
- Yale ingenuity in designing
- Yale accuracy of machining and processing
- Yale inspection and super testing
- Yale ability to secure utmost uniformity in product
- Yale reputation for dependability.

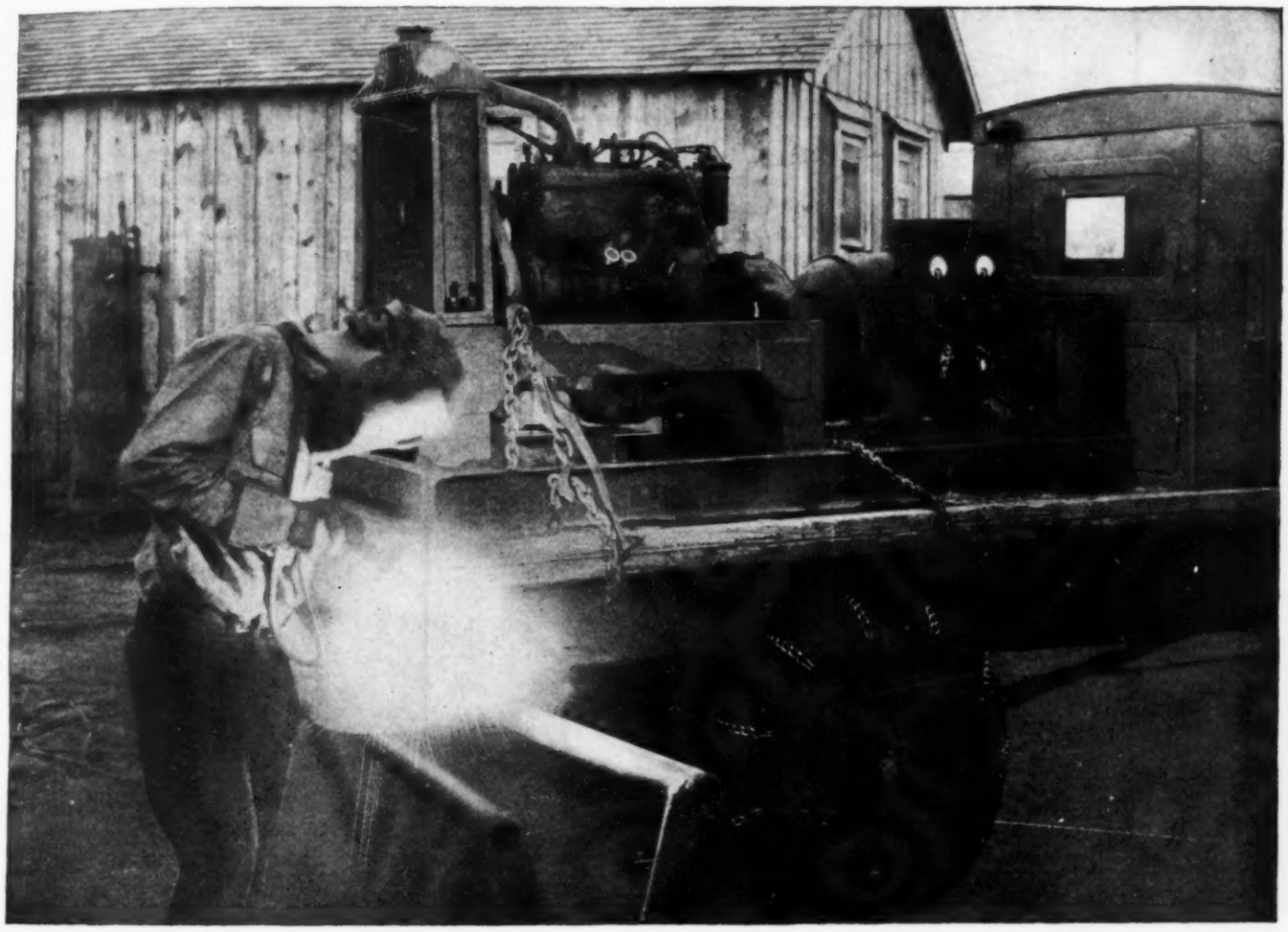
Every salesman handling Yale Ball Bearing Spur-geared Chain Blocks, Yale Screw-geared Chain Blocks and Yale Differential Chain Blocks, is equipped to demonstrate the superiority of this product as the only one with *every part made by the manufacturer.*

The Yale & Towne Mfg. Co., Stamford, Conn., U. S A.

Canadian Branch at St. Catharines, Ontario

YALE MARKED IS YALE MADE

YALE **Hoisting and Conveying Systems**



In the Seminole Field— They take the Weld to the Well!

General Electric supplies complete electrical equipment to the oil industry. With warehouse facilities close to your operations, G-E readily furnishes motors, controllers, transformers, arresters and other protective devices, capacitors for power factor improvement, switching equipment, etc.

G-E oil field specialists and G-E service at: Dallas, Denver, Houston, Kansas City, Oklahoma City, Tulsa, Los Angeles, San Francisco.

If you want a welder that will give you a good weld at low cost; that's ready to go to work any hour of the day or night; that will go where no power lines are available; that can be strapped to a truck and taken anywhere in the field for emergency repairs; that will stand up under a "beating" that only an oil field can inflict—say G-E.

G-E arc welders will save thousands of dollars of equipment in the refinery and keep your field equipment in first class shape at very little cost. They can be supplied with either a Buda or Continental engine and may be portable or stationary. Call up any of the conveniently located G-E offices for welding advice, service, or equipment.

530-22

GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN PRINCIPAL CITIES

ANOTHER ILLU

in drilling history, world's most illust

C. H. (STONEY) MARTIN, perhaps the best known, and one of the most successful drilling contractors in Texas, adds new luster to the already long and imposing list of drilling contractors who have found the CLARK DRILLING ENGINE ideally suited to their requirements in serving most of the largest producing companies of the Southwest. In a country long notorious for its strenuous drilling tasks, and where water conditions are such that the operation of steam drilling engines is at once costly and uncertain, the Clark Engine's low water and fuel consumption singles it out as the ONE logical engine for dependable, economical operation.

C. A. (Stoney) Martin, perhaps the best known, and one of the most successful drilling contractors in Texas.

In buying FOUR Clark Senior Drilling Engines, Mr. Martin has merely followed a natural process of selection which has guided many other modern business men in the contracting field to CLARKS. There is no more outstanding reason for the purchase of additional Clark Engines than the actual profitable performance of any Clark Engine. And during the past year, repeat orders became so frequent from the Texas District that we were required to establish two field warehouses in order to adequately meet the demands of users of Clark Drilling Engines. In every oil district the world over, the Clark Drilling Engine has won such esteem and prestige as the Oil Industry has never before accorded to any drilling engine in history. Buyer after buyer, seeking the advantages that only the Clark can give, placed order after order, until our Olean factory reached a peak of production that promised to surpass any year in sales and output since the company was established. And some months ago, the production mark did pass all other years; but new additions and rearrangements have since added to the efficiency of our day and night production and will eventually, we hope, allow us to strike a balance between production and demand.

In the meantime, the same quality which made possible the winning of the world's good will is being maintained, regardless of production, insuring the popularity and performance of the world's most illustrious drilling engine.

CLARK BROS. COMPANY
OLEAN, N. Y.
or
125 W. First Street
TULSA
Warehouses at McCamey and Sweetwater, Texas, and Artesia, New Mexico
or
SMITH BOOTH USHER COMPANY
125 S. Central Ave., Los Angeles
50 Fremont St., San Francisco.

W The CLARK D

Clark Bro's Co. OLEAN, N.Y.

STRIOUS NAME is linked with the rious drilling engine

The two men above are one of several of Stoney Martin's drilling crews who have helped establish his remarkable record with four Clark Drilling Engines.

S-L-O-W S-P-E-E-D IS L-O-N-G L-I-F-E

The CLARK Drilling Engine delivers full rated H-P in an IDEAL DRILLING MOTION!

A powerful, flexible, slow-speed drilling engine, with reliable automatic lubrication, and with safety speed limit governor. The crank-shaft and crank-pin bearings are die cast and easily replaced. The crank-case is dust and oil tight, Automatic lubrication of all engine bearings and moving parts is secured by a gear driven circulating oil pump located in the sump of the crank-case.

The one clutch lever operates both the go-ahead and also the reverse clutch. The brake lever operates the friction brake. This friction brake gives the driller full control of the band wheel when clutch is in neutral.

The clutch lever and the brake lever are operated from the derrick floor.

When the drilling engine is run on gasoline, the carbureter shown on illustration is used. When natural gas is used, the carbureter is replaced by the Clark mixing valve, there are no other changes on the engine; the same cylinder heads are used.

WRITE FOR BOOKLET

Name_____

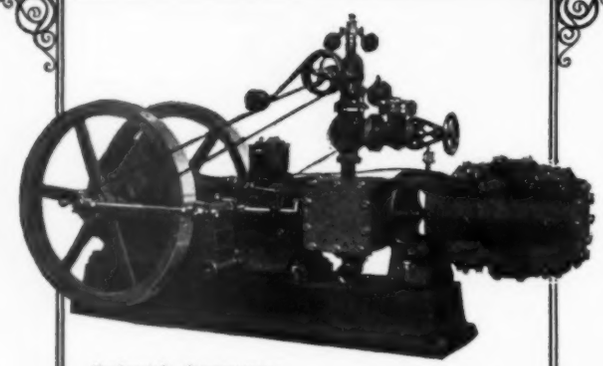
Address_____

rilling Engine

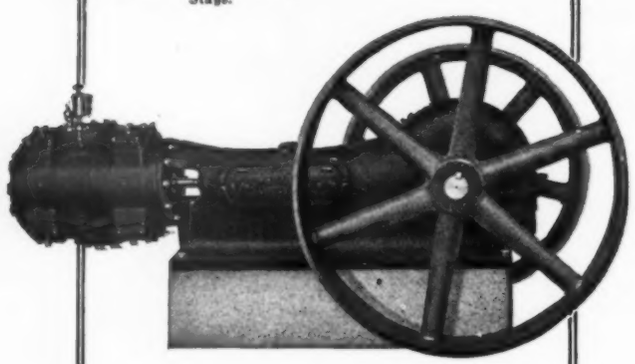
Say you saw it in The OIL WEEKLY

AIR COMPRESSORS

for all Services



Horizontal Compressor—Steam Driven Single Stage.



Horizontal Compressor—Belt Driven Single Stage.

XH Vertical Compressor—Duplex, Direct Connected to Motor.

Gardner Compressors are ideally suited for every oil industry requirement. In sizes they range from the small vertical type to large single and two-stage horizontal compressors.

Use Gardner Compressor for

Placing Air Lift on Oil Wells.
Building Up Rock Pressure on Oil Sands.
Operating Slush Hoists.
Gas Compression in Extraction Plants.
Agitating—Blowing.
Vacuum Service.
Cleaning-Out Wells.
Heavy Engine Starting.
Riveting, Sandblasting, Painting, Hoisting.

Send for Bulletins HAC-31 and XH-4

"Quality Builders for Over 65 Years"

THE GARDNER GOVERNOR CO.
Quincy, Ill.

CHICAGO 549 Washington Blvd.	NEW YORK 534 Singer Bldg.	PHILADELPHIA 604 Arch St.	MUSKOGEE 323 Dayton St.
HOUSTON 611 2nd Natl. Bank Bldg.	SAN FRANCISCO 400 Fourth St.	LOS ANGELES 684 Santa Fe Ave.	LONDON 25 Bishopsgate E. C. 2

OIL COUNTRY DISTRIBUTORS

Alamo Iron Works, San Antonio, Texas.
Atlas Supply Company, Muskogee, Tulsa and Ft. Worth.
Kirk W. Eichelberger, 401 Rialto Bldg., San Francisco
Emsco Derrick & Equipment Co., 6811 So. Alameda St., Los Angeles, Calif.
Haywood-Williamson, Shreveport and El Dorado.
F. W. Heitmann Company, Houston.
International Supply Co., Stores in all principal Mid-Continent fields.
Norvell-Wilder Hdwe Company, Beaumont, Houston and Ft. Worth.
The Republic Supply Company of California, Stores in all principal California Oil fields.

GARDNER

Say you saw it in The OIL WEEKLY

METRICS

These youngest members of the far famed family of Metric Meters have been given the biggest jobs of measuring. Hardly seems fair to make the youngsters do the most work, but when you know how well they do it, you'll have to admit there is a lot to this heredity business.

In honor of their efficiency these big boys have been baptised with the fine old family name—and are now widely known to measurement engineers as "METRICS."

We would be glad to introduce them to you.

"Metrics" are of two sizes: Their hourly capacities are 4000 and 7500 cu. ft. per hour. These capacities are based on a 2-inch differential rated at .6 gravity gas.

"Metrics" are built to take care of overloads smoothly without strain or wear. Considering their capacity they are small, light in weight, easy to operate and adjust.

MEASURE WITH METERS METRIC

WESTCOTT & GREIS, INC.
Sales Service
DALLAS - TULSA - LOS ANGELES

METRIC METAL WORKS
of the American Meter Company, Inc.
ERIE - PENNSYLVANIA - U-S-A-

METERS METRIC MEAN MEASUREMENT

"Its tested chain will stand the strain"

Some Grip!

We asked the boss what he thought of Williams' "Vulcan" Back-up Tongs.

"Some grip!" he said, and he knows because he's used them for years. After a while it gets to be a habit.

Get a GENUINE "Vulcan" on the job for you. It's the handiest and most dependable tool for rotary drillers on the market. Short, stubby handle, heavy drop-forged jaws, proof-tested and certified chain—every inch of the "Vulcan" is built for tough service. We'd be glad to send you literature.

J. H. WILLIAMS & CO.

"The Wrench People"

New York BUFFALO Chicago

GENUINE
WILLIAMS
SUPERIOR DROP-FORGED TOOLS
"VULCAN"
BACK-UP TONGS

Do You Know the Real Facts About

Wedglock and Roustabout Tubing and Rod Hooks ?

Demand the Best

Always Specify the NEILSON

The Neilson Wedglock
"The Old Reliable"
Snap in type

The Neilson Roustabout
Designed for Steel Derricks
Will Not Catch in Rig

Manufactured and Distributed Exclusively by

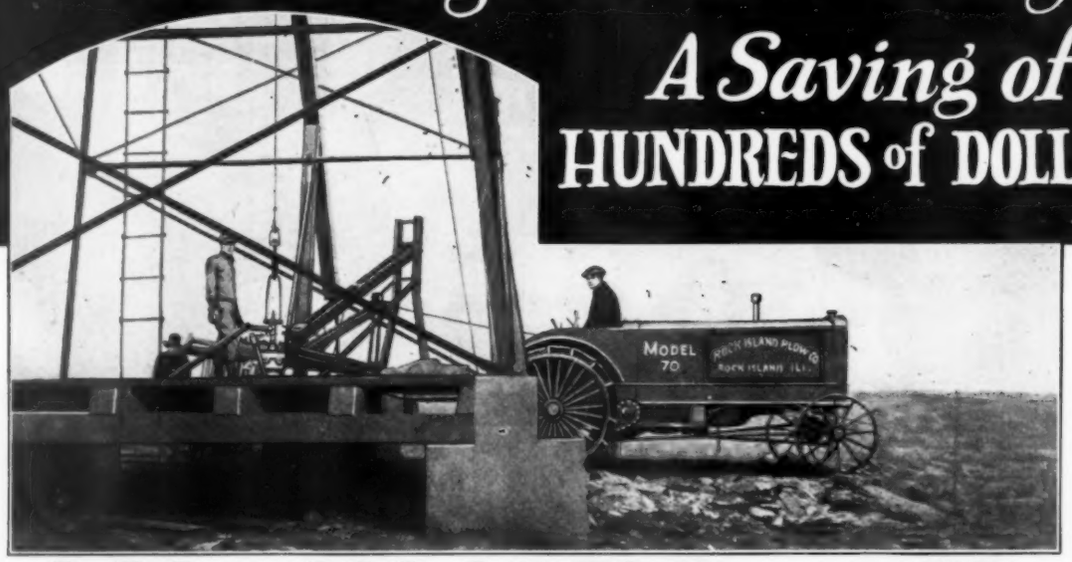
A. H. NEILSON MANUFACTURING CO.

Tulsa, Oklahoma

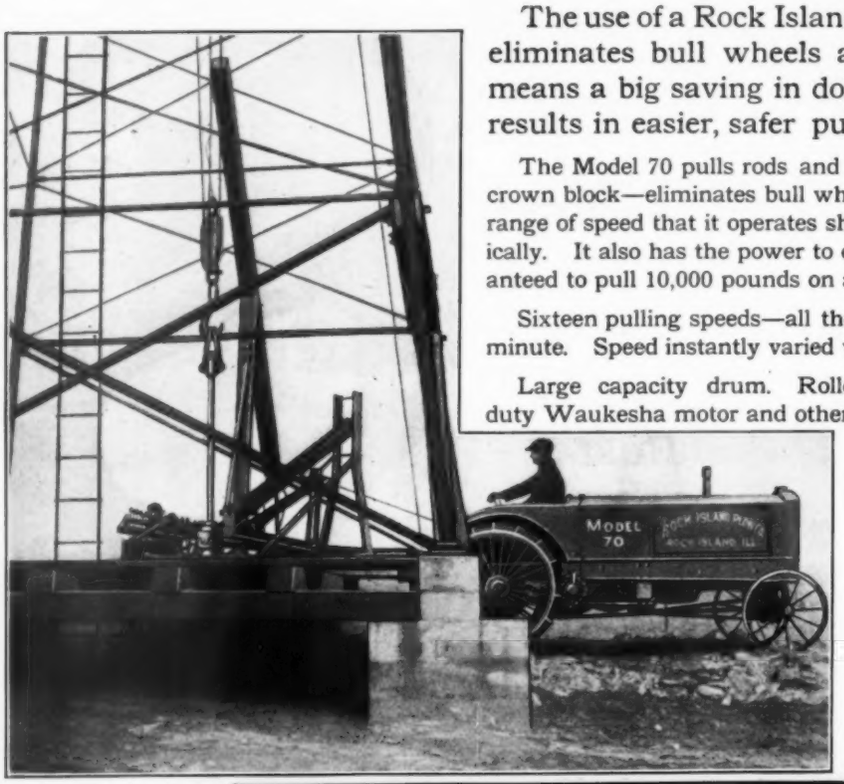
AT YOUR SUPPLY STORE

No Pony Wheels-No Bull Wheels When Pulling Rods and Tubing

A Saving of HUNDREDS of DOLLARS



Rock Island Model 70 Tractor Winch



The use of a Rock Island Model 70 Tractor Winch eliminates bull wheels and pony wheels, which means a big saving in dollars and cents, and also results in easier, safer pulling of rods and tubing.

The Model 70 pulls rods and tubing from drum directly over crown block—eliminates bull wheels entirely. It has such a wide range of speed that it operates shallow wells rapidly and economically. It also has the power to operate the deepest wells. Guaranteed to pull 10,000 pounds on a direct line.

Sixteen pulling speeds—all the way from 100 to 450 feet per minute. Speed instantly varied while in action.

Large capacity drum. Roller-bearing friction clutch, heavy duty Waukesha motor and other features make the Rock Island Model 70 cut the cost of pulling rods and tubing.

SOLD BY

C. F. Camp Company
Distributors
Corner Archer & Detroit
TULSA, OKLA.

MANUFACTURED BY

Rock Island Plow Company

ROCK ISLAND, ILLINOIS.

The LARGEST ITEM in operating COST

Drilling Oil Wells is the largest single item in operating costs—buy equipment wisely and well

SEND for BOOKLET

5,000 more wells will be drilled in 1927 than were drilled during the past year—and practically every well will be a DEEPER AND COSTLIER WELL, needing MORE equipment per well. *Proved Equipment Only*, is the order going out from the largest producing companies to their purchasing departments. Read what most producing companies have done concerning the running and pulling of casing in their wells.

The Oil & Gas Journal, under date of February 10th, estimates that at least 5,000 more wells will be drilled in 1927 than were drilled last year. And in keeping with the general trend, the 1927 wells will be DEEPER WELLS—and COSTLIER WELLS.

There will be more casing needed for drilling purposes, PER WELL, than was used last year, representing more investment, and GREATER HAZARDS, than the shallower wells of yesterday. To drilling contractors and producing companies who will have a part in this enormous 1927 program, we offer a suggestion which will prove of value in their operations, and which, if followed, should materially reduce operating costs in at least two particulars.

THE BOVAIRD GRIP CASING ELEVATOR has proved its worth to practically every large producing company, and many of the smaller ones, in the Mid-Continent fields during the past 4 years. In hundreds of instances it has demonstrated its superiority over other types of casing elevators, to such an extent that most of the companies who use it have issued orders to the effect that no casing, 10-inches or smaller, shall be run or pulled on any of their wells without a BOVAIRD GRIP CASING ELEVATOR and a BOVAIRD GRIP CASING SPIDER.

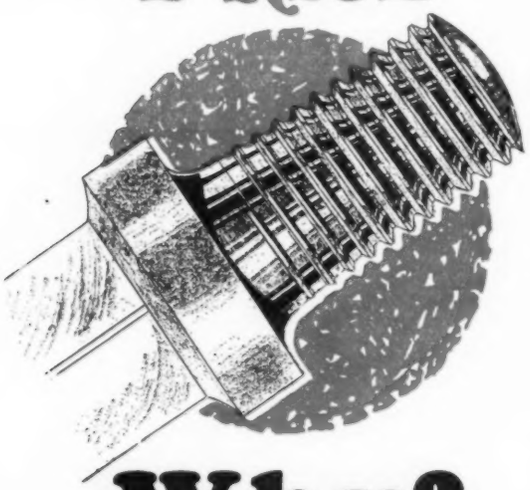
To those contractors and producers who have already used this modern elevator in the past, we need only say that it will perform as satisfactorily in the deeper wells of today as it did in the shallower wells of several years ago; but to those who have not experienced the satisfaction of speed and safety in running and pulling casing with the BOVAIRD CASING ELEVATOR AND SPIDER, we suggest that you fill out the coupon below and mail to us for a copy of our new booklet describing these two casing INSURANCE POLICIES, and our BOVAIRD GRIP TUBING SPIDER. The leading supply stores throughout the country sell this leading equipment.

BOVAIRD SUPPLY CO.
904 Mid-Continent Bldg.
Tulsa, Okla.

BOVAIRD GRIP CASING ELEVATOR

WRITE YOUR NAME AND ADDRESS HERE

A Vast Difference in ENDURANCE No Difference in PRICE



Why?

THIS rod was conceived on the premise that *steel* is the determining factor of sucker rod endurance.

Consequently we developed a special analysis steel **that stands superpunishment.**

We found that this steel was more costly to make than any steel heretofore used in sucker rods.

But you can buy the *Texas Electric Steel Sucker Rod* for ordinary prices, simply because we make our own steel and finish the rod entirely in our own plant.

FROM SUPPLY HOUSES Improved Jacks, Swings and Hold Downs, Nipples and Bull Plugs, Turnbuckles and Shackle Equipment, Casing Shoes, Heads and Clamps, Steel Castings.

TEXAS STEEL CO.

ELECTRIC STEEL MAKERS, ROLLERS AND FINISHERS

FORT WORTH, TEXAS

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Oil field Supplies to tie to

Lunkenheimer Company Lunkenheimer Valves and Fittings
Penberthy Injector Company Ejectors and Injectors
NORVELL WILDER HARD-WARE CO.
QUALITY AND SERVICE
Hercules Motor Corporation Power Units
Whitlock Cordage Company Rope

Sixteen years of specialization in oil field supplies plus complete stocks and quick deliveries have built a reputation for Norvell Wilder that is unsurpassed in the oil fields of the Southwest.

Our stores, located at advantageous points, are always ready to serve you, at a moment's notice, with the best supplies obtainable.

Write, phone or wire your needs

NORVELL WILDER Hardware Company

BEAUMONT HOUSTON SHREVEPORT FT. WORTH

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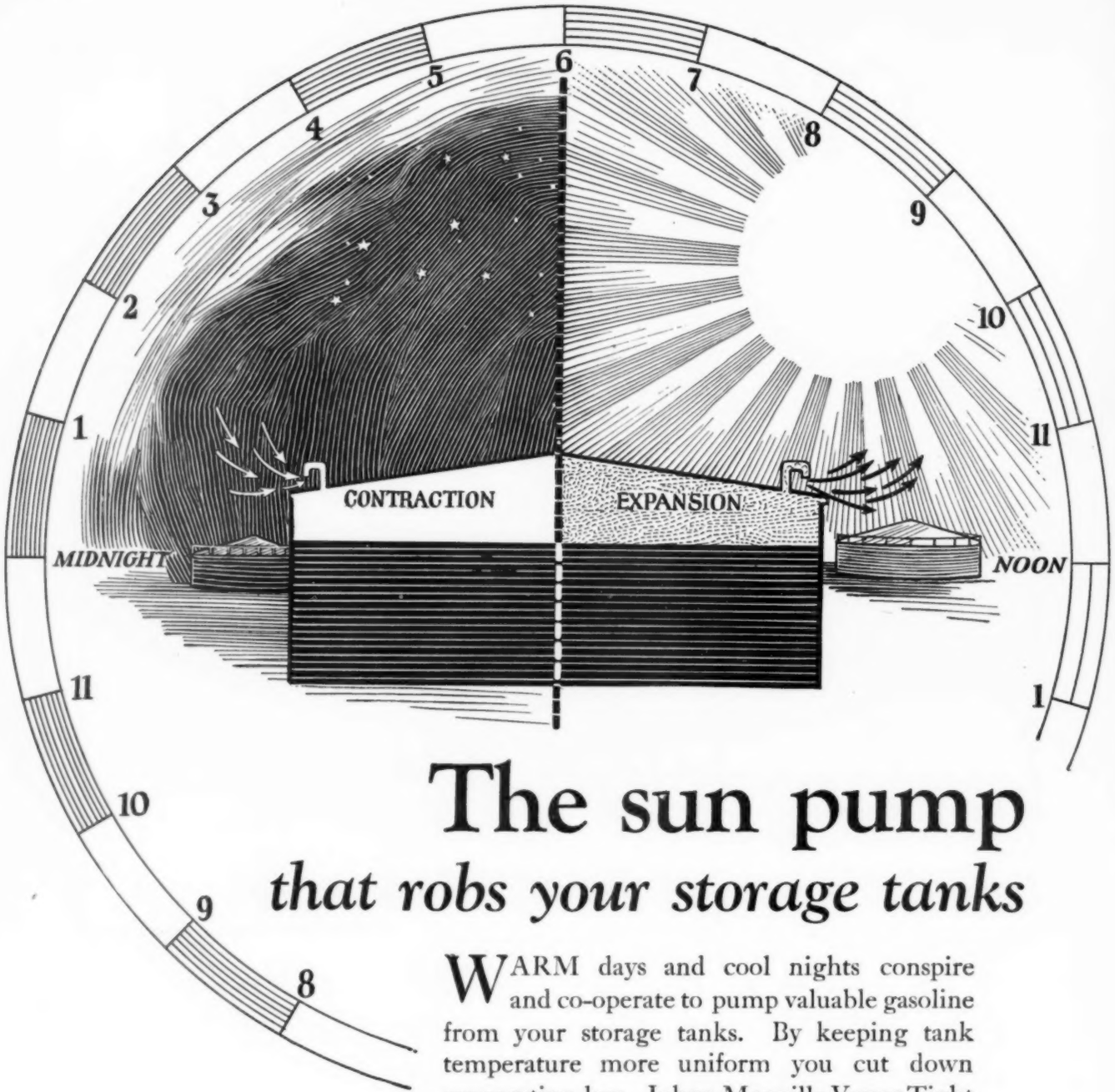

The sun pump
that robs your storage tanks

WARM days and cool nights conspire and co-operate to pump valuable gasoline from your storage tanks. By keeping tank temperature more uniform you cut down evaporation loss. Johns-Manville Vapor Tight Insulated Tank Tops* keep the interior of the tanks at an even temperature. They seal the roof and eaves so that vapor cannot escape by wind drift.

Tanks equipped with Johns-Manville Vapor Tight Insulated Tank Tops* mean real economy.

*Patented, other patents pending

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CEMENTS
FIRE PREVENTION PRODUCTS

JOHNS-MANVILLE
Oil Industry Department

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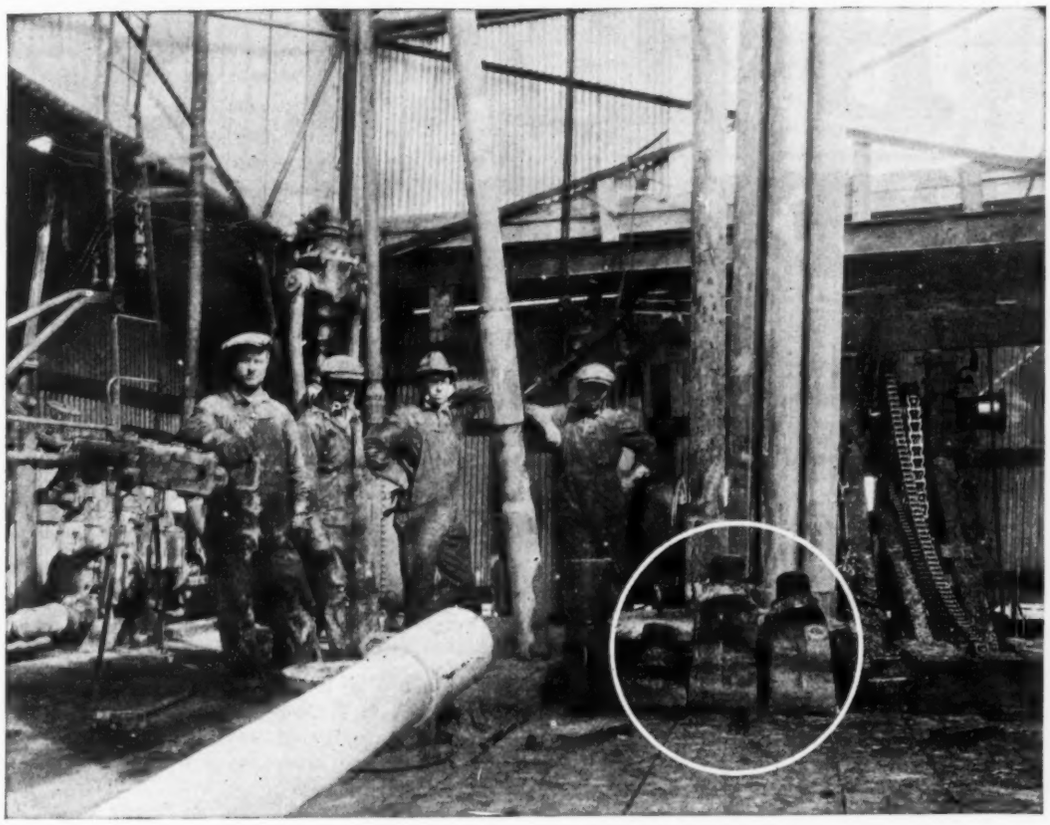


These Drillers are Confident

NO wonder these drillers radiate confidence. Their fish-tail bits are made of Agathon Alloy Steel and they know that this tough, super-steel will eat its way through everything in its path and last three times as long as ordinary steel. Drilling goes faster and delays are cut down.

The well shown here is No. 36 of the Humble Oil & Refining Company on the Stephens' farm in Vernon, Texas. J. G. Rowe is the contractor. The photograph shows, left to right: C. A. Moore, driller; J. Webb; R. W. Carter; T. H. Moore, using Lone Star bits made of Agathon Alloy Steels.

You, too, can get better results with less trouble and expense if your bits are made of Agathon Alloy Steel. Write for complete information.

Mid-Continent Office:
406 W. First Street
Tulsa, Oklahoma

ACATHON STEELS

Central Alloy Steel Corporation, Massillon, Ohio

World's Largest and Most Highly Specialized Alloy Steel Producers

Makers of Toncan Copper Mo-lyb-den-um Iron

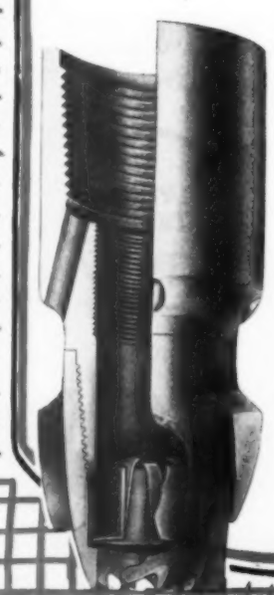
Cleveland Syracuse San Francisco Detroit Philadelphia Chicago Los Angeles New York Tulsa St. Louis Seattle Cincinnati

AGATHON ALLOY STEELS

BEATS REBUILDING

Phipps Renewable Core Bits

With the same fine qualities of performance as the Phipps one-piece bit, the new Phipps Renewable Two-piece Core Bit has the added advantage of immediate renewability right on the job, no matter how remote the operation may be.



You can replace or rebuild, as suits your convenience . . . but in any event . . . this bit head will save you time . . . money and worry. It reduces expense and coring to the infinitesimal minimum, durability unexcelled, built of the best forged steel and not cast steel.

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THERE'S ECONOMY IN BUYING LONG LIFE EQUIPMENT

INTER-OFFICE CORRESPONDENCE

PHILLIPS PETROLEUM COMPANY

SUBJECT

Lep Machine Shop
Bartlesville, Okla.
March 22, 1927

Mr. Fred E. Cooper
18 S. Madison
Tulsa , Okla.

Dear Sir:

I have just completed a survey of repair expenses on the eighteen Rumely tractors serviced from Lep Shop and thought you might be interested in my find.

The survey covered periods from nineteen to twenty-seven months on ten 16-30 and eight 20-35 tractors and averaged for the entire time $6.73 a month per tractor.

In view of the fact that ten of the tractors are the old standard model and some of them your very first winch jobs, that our boys make a round trip on tubing and rods, make three rod jobs in a half day(Well you know Phillips reputation for getting production) and that many a new driver was broken in during this time , I consider such a small repair expense almost a record.

I think your own records of how few repair parts we have bought and your knowledge of the present condition of our tractors will verify my statements.

Had these tractors all been the 20-35 light weight which are so much more sturdy and compact I am sure the average would have been even less. The light weight stands the abuse much better than the standard model and also handles nicer.

Be sure and let us know about the next race.

Sincerely yours,

Clarence J. Martin

RUMELY OIL PULL TRACTOR LA PORTE IND.

Winch Tractors deliver dependable service for years.

Ask Any Rumely User Here's a partial list.

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Continental Oil Co.
Dixie Oil Company
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Empire Gas & Fuel Co.
F. W. Merrick Oil Co.
J. A. Hull Oil Company
Kingwood Oil Company
Independent Oil Company
Midland Oil Company
Marland Oil Company
Pure Oil Company
Pennok Oil Company
Phillips Petroleum Co.
Roxana Petroleum Corporation
Rauth Faurot and Manhattan Oil Co.
Skelly Oil Company
Shaffer Oil & Refining Co.
Sun Oil Company
Sinclair Oil & Gas Co.
Texas Oil Company
Twinstate Oil Company
Wentz Oil Company
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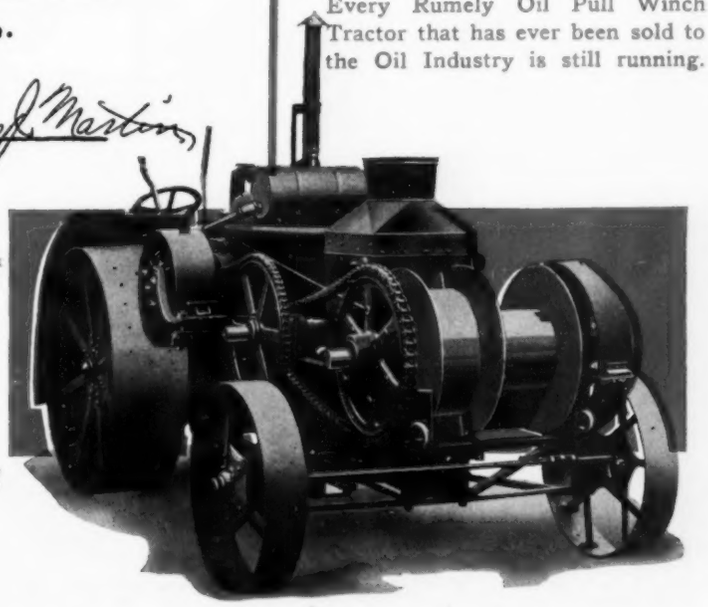
Wolverine Petroleum Corporation

Every Rumely Oil Pull Winch Tractor that has ever been sold to the Oil Industry is still running.



Early Rumely Buyers
Tractor Winch No. 1—J. A. Plumely, Arkansas City, Kansas.
Tractor Winch No. 2—Wentz Oil Corp., Ponca City, Oklahoma.
Tractor Winch No. 3—Pennok Oil Co., Tonkawa, Oklahoma.
Tractor Winch Nos. 4 and 5—Empire Gas and Fuel Company
Tractor Winch No. 6—Phillips Petroleum Co.

Write us for descriptive circular of Rumely Oil Pull Winch Tractors.

Fred E. Cooper

Special Oil Field Representative
18 SO. MADISON, TULSA, OKLA.

Standardization

"Standardization" as used in connection with Lorraine oil well devices and equipment, comprehends a wise standardization of design, standardization in construction and standardization in manufacturing methods.

This intelligently planned method of procedure and production insures superiority and uniformity, not alone in the refinement of detail, but in those inherent qualities which insure consistent performance, operating economy and long life. Interchangeability of parts, which from their very nature must become worn from long service, is a factor minimizing maintenance costs and assuring economy and facility of replacements when required.

The Lorraine Line of Oil Well Equipment is Constantly Being Augmented by New Porducts. Those illustrated here are:

1. Lorraine Two-Way Valve
2. Lorraine "B & M" Stuffing Box
3. Lorraine Relief Valve
4. Crowell "Makesure" Cement Barrel or Shoe
5. Lorraine Automatic Gas and Oil Separator
6. Stitzinger Universal Bearing (For Sand Reels)
7. Lorraine Sucker Rod Rack

THREE ADDITIONS TO THE LORRAINE LINE

Multiple Flow Nipple
Lorraine Polish Rod Clamp
Surelit Pump

Catalog of Lorraine Products will be sent to you promptly on request. Write today.

THE LORRAINE CORP.

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Tulsa, Okla.

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Southern Specialty Co.,
526 So. Washington St., Box 1796,
El Dorado, Arkansas

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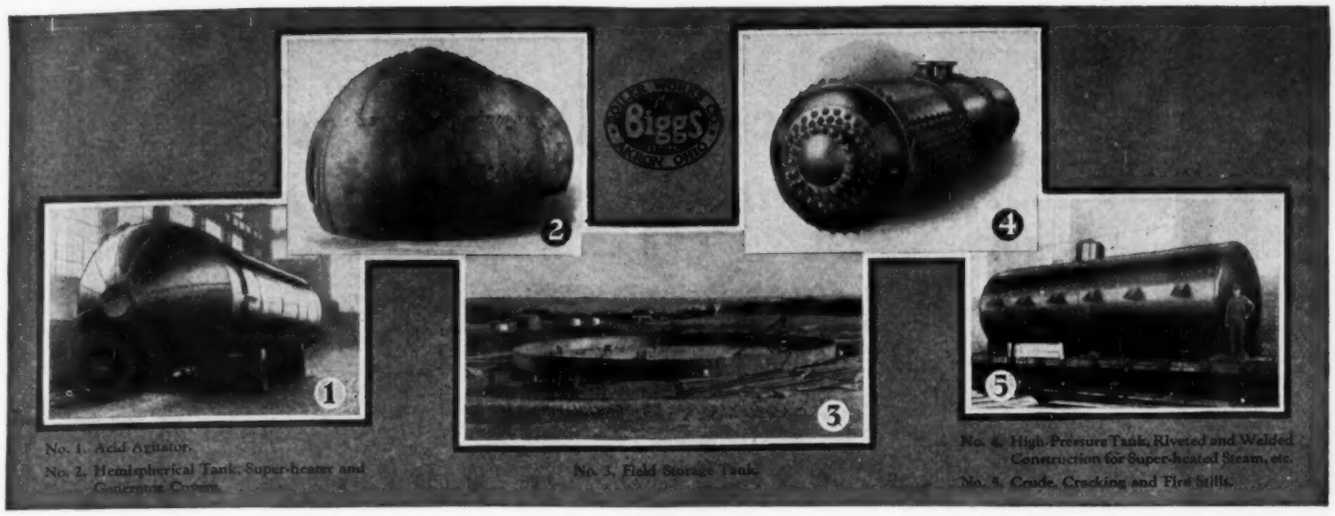

No. 1. Acid Agitator.
No. 2. Hemispherical Tank, Super-heater and Generator Covers.
No. 3. Field Storage Tank.
No. 4. High Pressure Tank, Riveted and Welded Construction for Super-heated Steam, etc.
No. 5. Crude, Cracking and Fire Stills.

"Forty Years of Knowing How" Produced These Jobs

Big jobs they are—accurate jobs—jobs that last! For Biggs specializes in heavy steel plate work up to 1½ inches thick—work that combines exactness with immensity.

Great dies precisely machined. Sheets shaped and marked accurately for punching. Huge rivets driven under a pressure of 150 tons to the square inch to form an absolutely tight joint. Cranes moving 25-ton loads with ease and complete certainty.

Biggs is extraordinarily able, *from 40 years of knowing how,* to fabricate and build every kind of heavy duty equipment used in the oil industry. We should be pleased to quote on field storage tanks, refinery equipment, or any other kind of riveted steel plate work.

"Built by Biggs" means "Made Right—Always Tight"

Manufacturers of

- Pressure Stills for Cracking Process
- Fractionating Towers
- Dephlegmating Towers
- Bubble Towers
- Heat Exchangers
- Agitators
- Steam Stills
- Crude Stills
- Condenser Boxes
- Run Down Tanks
- Blending Tanks
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- Blow Cases
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- Smoke Stacks and Breechings, etc.

Let us send you a copy of "What Biggs Does and How." It takes you on a quick, interesting trip through the Biggs plant. No obligation, of course—just mail the coupon.

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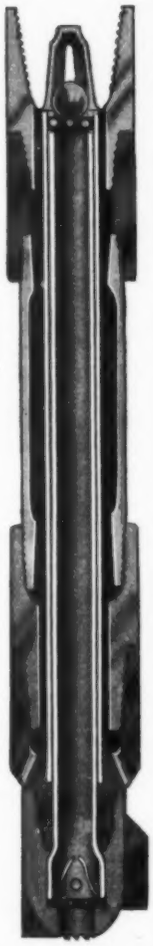
TRADE MARK REGISTERED.

TANKS AND GENERAL
STEEL PLATE WORK
for the Oil Industry

The Perfection Core Barrel

A Dependable Coring Tool



Manufactured by

OIL CITY IRON WORKS, INC.

SHREVEPORT, LOUISIANA

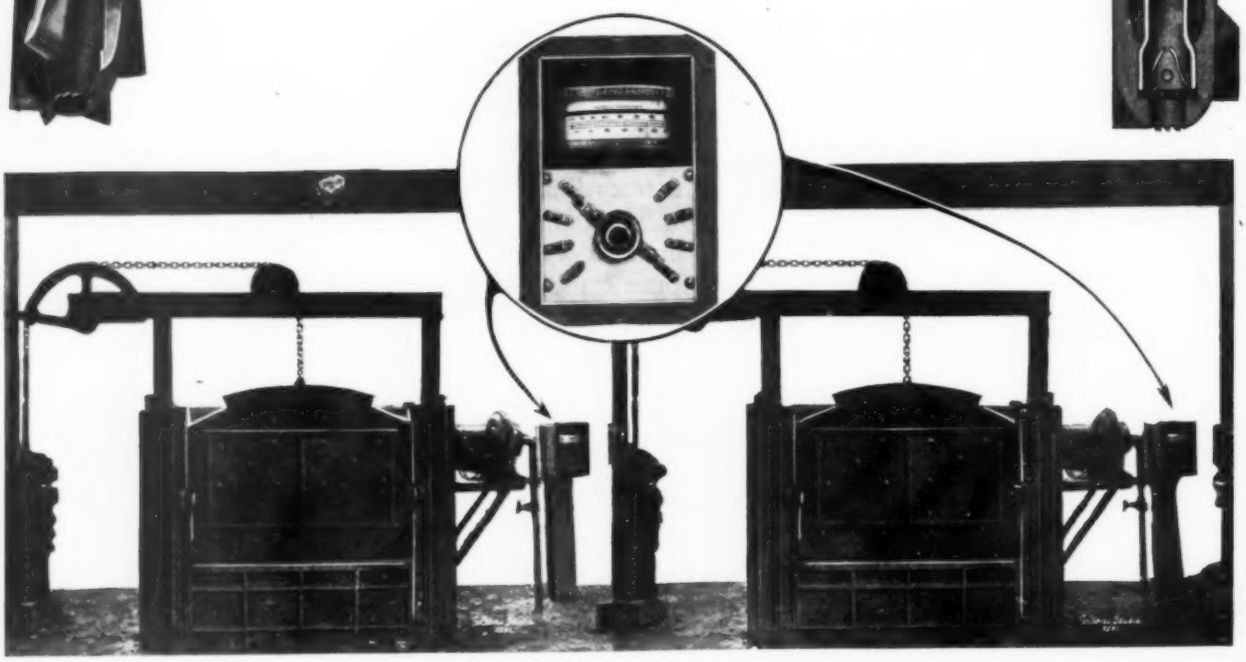
Write us for pamphlet and prices.

Stocked by

Wilson Supply Co.
Houston, Texas

Hercules Supply Co.
Dallas, Texas

A PERFECT CORE CUTTER



A BATTERY OF HEAT TREATING FURNACES, equipped with Electric Automatic Controlled Pyrometers, (See insert), Where PERFECTION CORE BARRELS and PARTS are scientifically heat treated.

ALL CORE BARREL BIT HEAD and PARTS, TOOL JOINTS, DRILL BITS and DRILL COLLARS are given a scientific treatment with this equipment, thus insuring an equal HARDNESS and TOUGHNESS of material never before obtained by the old process.

A better drilling service

For all Cable Tool Drilling including "Drilling in" on combination Rotary Rigs

LEIDECKER SPIRAL DRILLING BITS

Utmost Speed, Ease of Operation and Straight Hole through all formations are advantages

"Drilling Tools Designed Right Will Drill More"

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Stocks at Tulsa, Sapulpa, Beggs, Bristow and Seminole, Oklahoma, Independence, Kansas, and Borger, Texas

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Refiners of PETROLEUM

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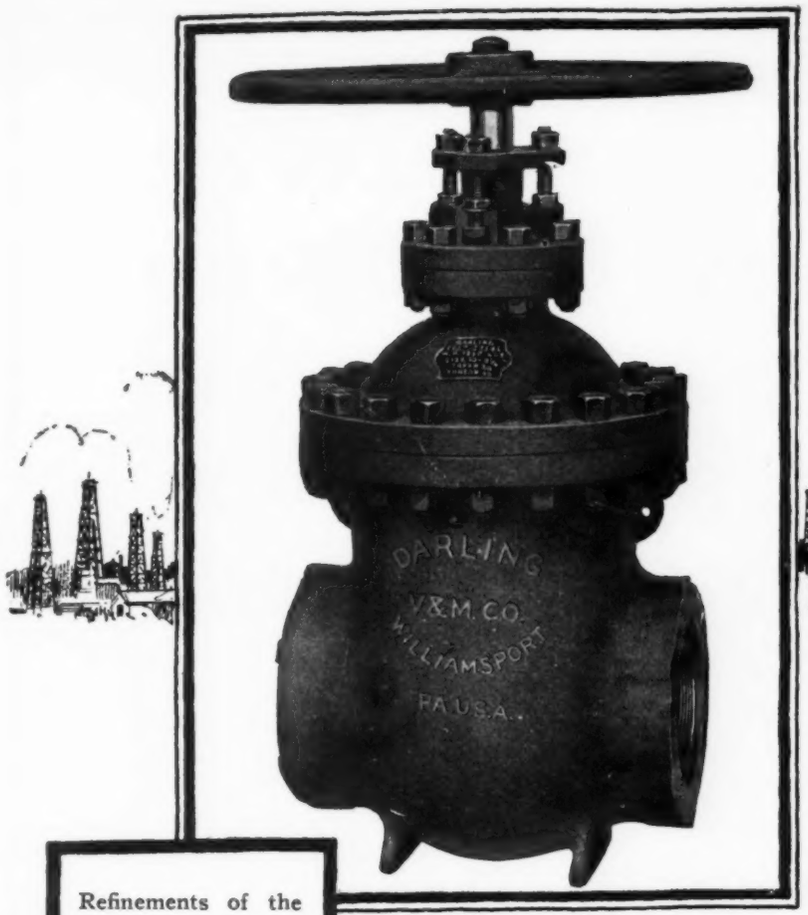

Refinements of the Cast Steel Darling Valve

Cast steel frame of great tensile strength; optional equipment of bronze or steel seat rings; forged steel or bronze-faced forged steel rotating discs; concealed seat rings, out of the way of tools and pipe; pipe and tool guides; chain-hook rings and tong lugs for easy installing and cast feet that keep valves in upright position when not in use.

What is an Ideal!

Great attainments—leadership in any activity — such things do not merely happen. There must be definite ambitions toward a clearly-visioned ideal. The *ideal* then becomes the driving force of the individual or the organization—the pledge of unrelenting effort and maintained performance. An ideal is a task-master.

The ideal of the Darling Valve Company is leadership in the making of valves. The purchaser of a Darling Gate Valve—whether for producing, conveying or refining—is safeguarded by the existence of this active ideal.

DARLING VALVE & MFG. COMPANY

Williamsport, Pa.

New York Chicago Oklahoma City Houston

Mid-Continent Distributors:

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DARLING
GATE VALVES

Swabbing An Oil Well With Any Old Swab To Save Money—Is Like Stopping Your Clock To Save Time

It Can't Be Done

On a 15 day test on 10 wells The Burt Swab against all makes saved One Company $935 or $1870 for a month and $22,440 for one year for rubbers.

Better buy The Burt and forget low-priced oil or better still pay the money saved to an Engineer to make such tests.

Manufactured By

THE BURT CORPORATION

325 East Fourth St. TULSA, OKLAHOMA

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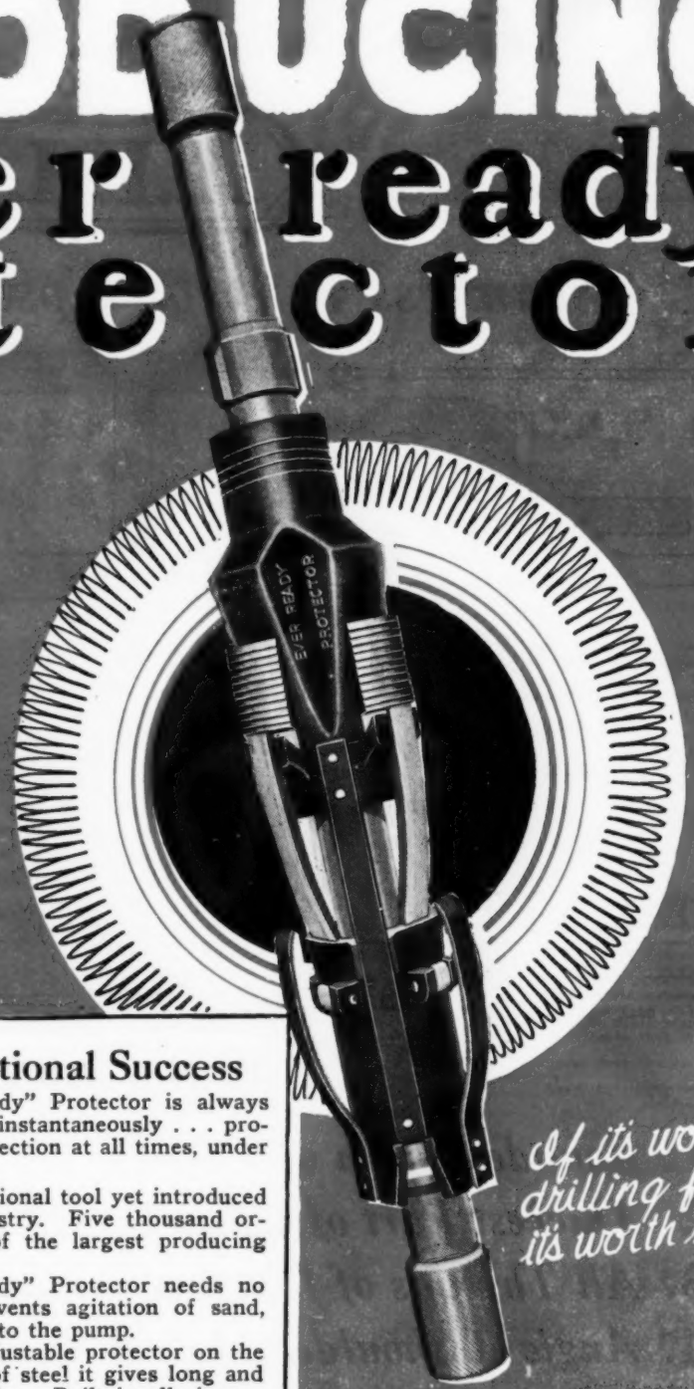
INTRODUCING
The ever ready protector



A Sensational Success

The "Ever Ready" Protector is always ready . . . acts instantaneously . . . provides 100% protection at all times, under all conditions.

The most sensational tool yet introduced to the Oil Industry. Five thousand ordered by one of the largest producing companies.

The "Ever Ready" Protector needs no anchor. It prevents agitation of sand, giving clean oil to the pump.

It's the only adjustable protector on the market. Made of steel it gives long and dependable service. Built in all sizes.

ASK FOR PARTICULARS

If it's worth drilling for it's worth saving

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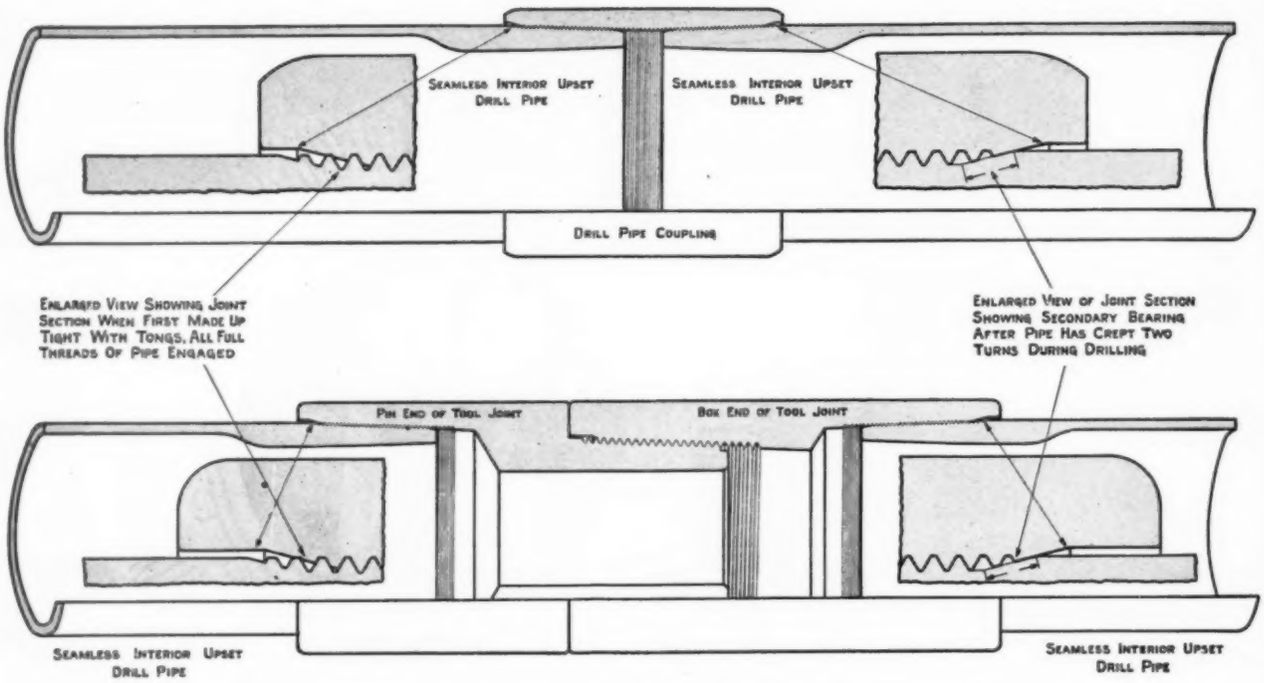
SMITH SEPARATOR COMPANY
Tulsa S Okla.

"NATIONAL"

A.P.I.

Seamless Interior Upset Drill Pipe


Seamless Interior Upset Drill Pipe
Seamless Interior Upset Drill Pipe
Drill Pipe Coupling
Enlarged View Showing Joint Section When First Made Up Tight With Tongs, All Full Threads Of Pipe Engaged
Enlarged View of Joint Section Showing Secondary Bearing After Pipe Has Crept Two Turns During Drilling
Pin End of Tool Joint
Box End of Tool Joint
Seamless Interior Upset Drill Pipe
Seamless Interior Upset Drill Pipe

Special Features

1. *Rounded Form of Thread*
2. *Thickest Part of Upset Under Last Full Thread*
3. *All Threads of Pipe Fully Engage*
4. *Angle of Shoulder Threads Forms Secondary Bearing*
5. *Entering Threads on Pipe and Coupling Same Angle*

These special features when worked in combination with properly designed tool joints make the most efficient drill string it is possible to secure at this time. To obtain the maximum service from this pipe, the operator should use tool joints designed to give the same fit as the couplings. These tool joints should have vanishing threads at the bottom of the recess to correspond to the angle of vanish on the shoulder of the pipe, and the tool joints should be tapped large enough to permit them to screw up by power until all full threads on the pipe are engaged by the threads of the tool joint.

NATIONAL TUBE COMPANY, PITTSBURGH, PA.

District Sales Offices in The Larger Cities

BETTER VALVES

The Larkin Brass Jacketed, Non-Corrosive Insert and Ball Valve

FITS ALL STANDARD EQUIPMENT

Emulsion Preventing, Long Service Ball and Seat. *Where others finish, we start.* Heat treated first, finished after. No warpage, no irregularity. Recoil in brass encasement reduces ball shock on insert.

Central Oil Company of Los Angeles
WELLS AT WHITTIER, CAL.
Los Angeles, Cal.

Los Angeles, Calif.
April 7, 1927.

Specialty Sales Co., Inc.,
1101 Spring Arcade Building,
Los Angeles, Calif.

Gentlemen: Attention- J. F. Larkin

It affords us great pleasure to recommend your Ball & Seat Valve. We have yet to pull one of your Valves since first installing some six months ago.

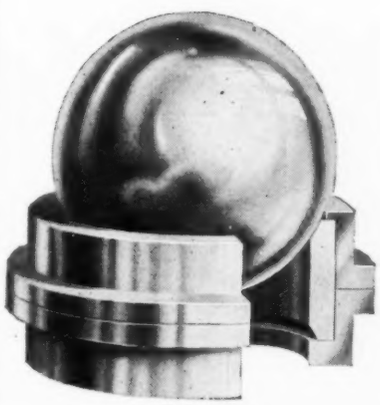
We had Wells that emulsified their oil and necessitated changing Balls & Seats every fifteen days or so. Yours have given us our first clean oil from those particular Wells and have been doing so since October last year.

We are using nothing else now.

Yours very truly,

T. H. Trumpler

Superintendant.



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Ethel D. Supply Company
MAIN OFFICE
MARICOPA, CALIFORNIA

March 14th, 1927.

TELEPHONE MAIN 39
P. O. Box 429

Specialty Sales Company, Inc.
1101 Spring Arcade Building,
Los Angeles, California.

Gentlemen: ATTENTION: Mr. J. F. Larkin

We are pleased to report to you that our experience with your Ball & Seat Valves is most encouraging. Since installing the first set some five months ago we have not had occasion to change this pump which in itself is a marked improvement over the service we have had before. The Valve is still doing its work with a high degree of efficiency. The first cost of installation makes your Valve more economical than any non-corrosive that we have used.

Yours very truly,

ETHEL D. SUPPLY COMPANY,

C. L. Dearing
Storekeeper.

CLD/

Insert Will Not Chip, Crack Nor Batter

Big saving after initial installation. Brass jackets can be used over and over again. A new valve by replacing insert and ball.

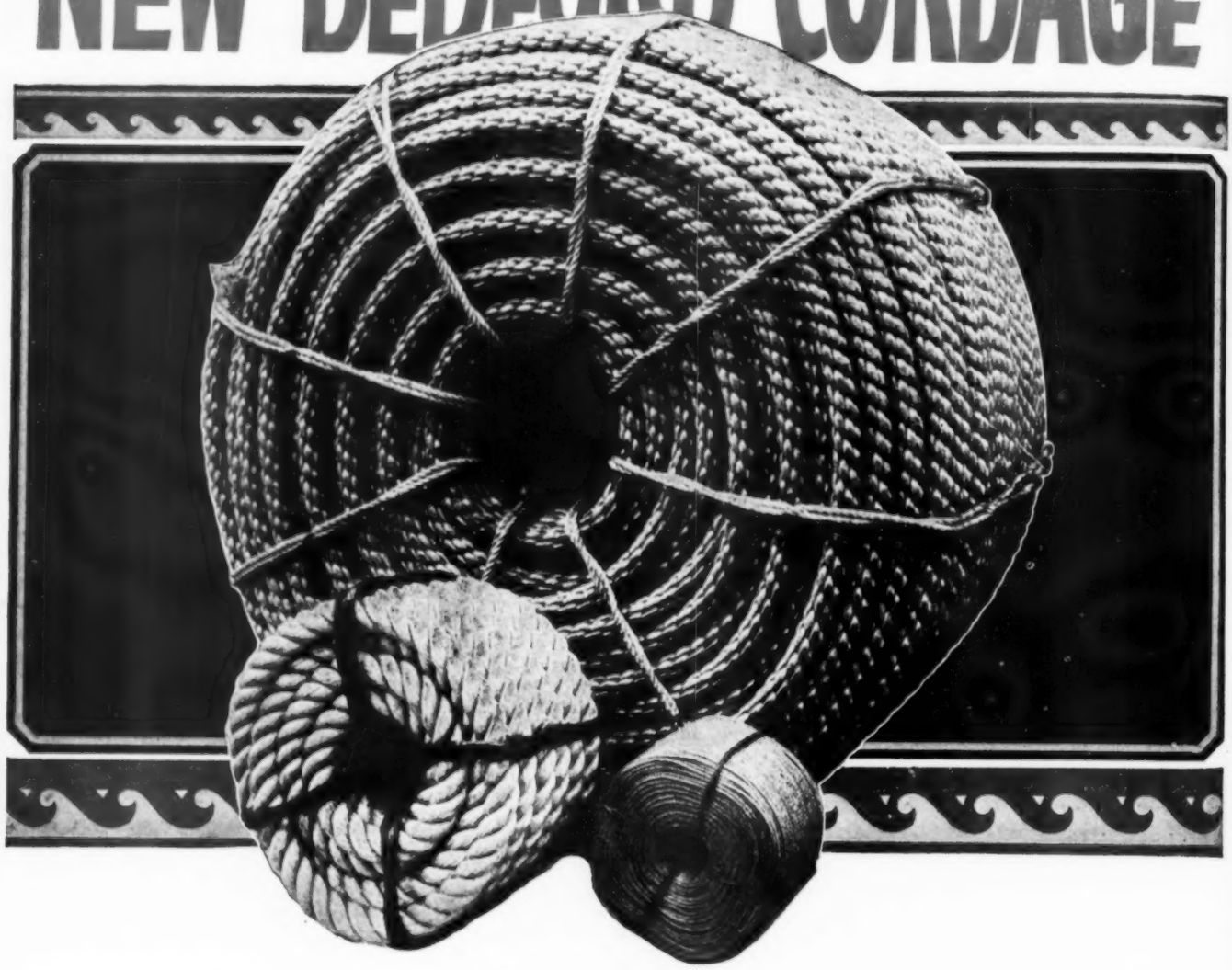
All Inserts and Jackets Interchangeable

What they do for others they'll do for you

SPECIALTY SALES CO., Inc.

1101 Spring Arcade Building **LOS ANGELES, CALIF.**

NEW BEDFORD CORDAGE



DRILLING CABLES
BULL ROPES
TORPEDO LINES

"New Bedford—None Better" has been the slogan of the New Bedford Cordage Company for 85 years, and its claim has been fully substantiated by New Bedford Drilling Cables, Bull Ropes, Torpedo Lines, and other products.

This company was a pioneer in the American manufacture—and has been a consistent pioneer in the *improvement*—of manila cordage.

Only high-grade, pure manila is used—unsurpassed for strength and wearing quality. Special attention is called to New Bedford *Pure Manila* Bull Ropes. Unexcelled for strength and durability.

"If CONTINENTAL Sells It, There Is No Better"

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General Offices: St. Louis.
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INDEX TO ADVERTISERS

A

Abercrombie Company, J. S. ..... *
Acme Fishing Tool Company ..... *
Aetna Ball Mfg. Co. ..... *
Ajax Iron Works 76-77
Alco Oil Tool Company ..... *
Alten's Foundry and Machine Works ..... *
Aluminum Company of America ..... *
Amarillo Hotels ..... *
American Cable Company ..... *
American Manufacturing Company of Texas *
American Roller Bearing Company ..... *
American Seamless Tube Company ..... *
American Telephone & Telegraph Company *
American Well Works 109
Anderson & Anderson 122
Andrews & Borsum 118
Andrews Steel Company 127
Arco Company ..... *
Athey Truss Wheel Company ..... *
Axelson Machine Company ..... *
Atmore Company, Robert N. Inside back cover

B

B. & A. Specialty Company 87
Baash-Ross Tool Company 106
Baird Tool Works ..... *
Baird Supply Company ..... *
Baker Casing Shoe Company 36
Barnickel, William S., Company 122
Barrett & Company, G. E. 71
Beaumont Iron Works ..... *
Becker Specialty Company ..... *
Beebe Brothers ..... *
Bessemer Gas Engine Company ..... *
Biggs Boiler Works Company 25
Bovaird Supply Company 17
Bowser Company, S. F. ..... *
Bridgeport Machine Company ..... Inside Front Cover
Brown, Arthur C. 122
Buckeye Traction Ditcher Company ..... *
Burns Tool Company 91
Burt Corporation 30
Butler Manufacturing Company 6
Byers Company, A. M. 85

C

Cameron Iron Works ..... *
Central Alloy Steel Corporation 21
Central Tube Company 107
Chain Belt Company ..... *
Chicago Pneumatic Tool Company 101
Clark Brothers Company 10-11
Climax Engineering Company 99
Continental Supply Company 34
Cook Motor Company ..... *
Cooper, Fred E. 23
Cyclone Fence Company 127

D

D. & B. Pump & Supply Company ..... *
Darling Valve Manufacturing Company 29
De La Vergne Machine Company 123
Diamond Drill Carbon Company 104
Dunn Manufacturing Company..Insert and 128

E

Eastern Torpedo of Ohio Company ..... *
Eclipse Paint & Manufacturing Company.. *
Elliott Core Drilling Company ..... *
Emsco Derrick & Equipment Company 4
Emsco Derrick & Equipment Co. of Texas ..... *

F

Fairbanks-Morse Company ..... *
Federal Supply Company ..... *
Flexible Steel Lacing Company ..... *
Fort Worth Laboratories 122
Franklin Valveless Engine Company 81
Frick-Reid Supply Company 105
Fuller Machine & Forge Works 112

G

Gallup Map & Supply Company 122
Gardner Governor Company 12
Gaso Pump & Burner Manufacturing Co... 3
General Electric Company 9
Gott, H. P., Manufacturing Company 120
Goulds Pumps, Inc. ..... *
Greenspons, Jos., Iron and Steel Co. 127
Guiberson Corporation 93
Gulf Coast Machine & Supply Company .. *
Gulf Refining Company 28
Gulf State Utilities Company ..... *
Gustin-Bacon Mfg. Company 65

H

Halliburton Oil Well Cementing Company *
Halliburton Co., Erie, Pa. ..... *
Handy, I. C. 122
Hardway & Cathey 122
Harrisburg Pipe & Pipe Bending Company *
Harrisburg Pipe & Pipe Bending Company of Texas ..... *
Haynes Stellite Company ..... *
Heppenstall Forge & Knife Company .... *
Hercules Motor Corporation ..... *
Hercules Tool Company ..... *
Heydrick Mapping Company 120
Hinderliter Tool Company 68-69
Hirsch & Brown 122
Hoover Steel Ball Company 117
Hope Engineering & Supply Company ... *
Hopkins, Edwin B. 122
Houston Engineers 108
Houston Pump & Supply Company ..... *
Hough Manufacturing Co., Charles N..... 116
Hughes Tool Company ..... Back cover
Humble Oil & Refining Company ..... *

I

Imperial Royalties, Inc. ..... *
Ingersoll-Rand Company 103
International Derrick & Equipment Co. ... 38
International Supply Company ..... *

J

Jarecki Manufacturing Company ..... *
Jensen Bros., Manufacturing Company ...104
Johns-Mansville, Inc. 20
Jones Company, The S. M. 106

K

Kerotest Manufacturing Company ..... *
Keystone Pipe & Supply Company 118

L

Landis Machine Company 5
Larkin & Company ..... *
Layne & Bowler ..... *
Le Bus Rotary Tool Works ..... *
Leidecker Tool Company 27
Leonard, P. G. ..... *
Link-Belt Company ..... *
Lorraine Corporation 24
Lubricup Company 123
Lucey Manufacturing Company ..... *
Ludlow Valve Manufacturing Company 127
Lufkin Foundry & Machine Company ..... *
Lunkenheimer Company ..... *
Lyons, Thomas D. ..... *

M

Magnolia Petroleum Company ..... *
Maloney Tank Manufacturing Company ...114
MacClatchie Manufacturing Company ..... *
Manzel Brothers Company ..... *
Maverick, Phillip 122
McEvoy, J. H. & Company ..... *
McGregor Working Barrel Co., Inc. 110
Merit Oil Equipment Company ..... *
Metric Metal Works 13
Mission Sales Company 111
Moore, Lee C., & Company ..... Insert

N

Nabors, Company, W. C. ..... *
National Petroleum Engineering Company..109
National Pigments & Chemical Company...123
National Supply Companies 95
National Tube Company 32
Neilan, Schumacher & Company 121
Neilson Mfg. Company, A. H. 15
Norris Brothers, Inc. ..... *
Norris Manufacturer, W. C. ..... *
Northrup Equipment Company ..... *
Norvell-Wilder Hardware Company 19
Novo Engine Company ..... *
Nye Tool and Machine Works 7

O

O'Brien Steel Construction Company ..... *
Oil City Iron Works (Shreveport) 26
Oil City Iron Works (Corsicana) ..... *
Oil Specialties Manufacturing Co. ..... *
Oil Engineering Company 121
Oil Field Tool Company ..... *
Oil Well Accessories Company ..... *
Oil Well Supply Company 61
Oklahoma Gas & Electric Co. ..... *
Oklahoma Contracting Co. 79

P

Parkersburg Rig & Reel Company ..... *
Pattin Bros. Company 110
Peden Iron & Steel Company 114
Petroleum Iron Works ..... *
Petroleum Rectifying Company ..... *
Pittsburgh Steel Products Company ..... *
Portable Rotary Rig Company ..... *
Price, W. Armstrong ..... *
Progressive Brass Mfg. Company 129

R

Ratigan, J. P. ..... *
Reading Iron Company ..... *
Reed Roller Bit Company ..... *
Regan Forge & Engineering Company ..... *
Reid, Joseph, Gas Engine Company ..... *
Republic Supply Company 119
Rex Supply Company ..... *
Robertson-McDonald Lumber Company 120
Rock Island Plow Company 16

S

Shaffer, J. E. Company ..... *
Shaffer Specialty Company 97
Shaffer Tool Works 116
Shaw, S. F. 122
Shine, Harry B. ..... *
Sinclair Refining Company 89
Sivyer Steel Castings Company ..... *
Smith, Corporation, A. O. 63
Smith, H. C. Manufacturing Company 22
Smith Separator Company 31-130
Smith, Howard, Company ..... *
Sonner Gas Burner Company, The J. P. ... *
South Chester Tube Company ..... *
Southern Engine & Pump Company 118
Southern Brass Manufacturing & Plating Company 122
Standard Collapsible Rotary Drill Company *
Spang & Company ..... *
Spence Machine Company 108
Spencer Trailer Company 115
Specialty Sales Company 33
Star Drilling Machine Company, The .... *
Stearns-Rogers Manufacturing Company ... *
Steiner, Dr. George 122
Stone, Jesse R. 122
Straus-Bodenheimer Company ..... *
Sullivan Company, The ..... *
Sullivan Machinery Company ..... *

T

Taubman Supply Company 75
The Texas Company ..... *
Templeton, Kenley & Company, Ltd. 126
Texas Creosoting Company ..... *
Texas Cyclone Fence Company.....127
Texas Oil Pump Company ..... *
Texas Power & Light Company ..... *
Texas Steel Company 18
Timken Roller Bearing Company ..... *
Titusville Iron Works, The ..... *
Trimont Manufacturing Company ..... *
Trinity Portland Cement Company ..... *
Trumble Gas Trap Company ..... *
Tulsa Pipe & Supply Company 112
Tyler Tube & Pipe Company, The 123

U

United Iron Works ..... *
United States Torpedo Company ..... *

V

Victaulic Company of America ..... *

W

Ward Chemical Company ..... *
Wagner Electric Company ..... *
Waukesha Motor Company 124
Webster Engineering Company 107
Weinzierl, John F. 122
Westcott & Greis 72-73
Wickwire-Spencer Steel Company, Inc. ... *
Wico Electric Company ..... *
Wheeling Steel Corporation ..... *
Williams & Company, J. H. 14
Williamsport Wire Rope Company ..... *
Wilson Oil Tools Corporation ..... *
Wilson-Snyder Mfg. Company ..... *
W-K-M Company ..... *

Y

Yale & Towne Company 8

Z

Zero Hours Petroleum Company ..... *

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Volume 45, Number 7 May 6, 1927

The OIL WEEKLY

Edited Weekly at Houston, Texas SPENCER W. ROBINSON, Editor

Engineering—Technical—Research

METHODS AND TOOLS FOR REMOVING PARAFFIN FROM WELLS 51
By C. E. Reistle, Jr.
SEMINOLE LIFT EQUIPMENT GIVEN FINISHING TOUCHES 54
By George Reid
BUREAU STUDYING SEMINOLE AT CLOSE RANGE 57
BOOSTER STATION AT EDNA, TEXAS, IS EFFICIENT UNIT 74
By A. R. McTee
NATURAL GAS IS EFFICIENT FOR STEAM MAKING FURNACE 80
By Ismar Ginsberg
NEW EQUIPMENT, CATALOGS, BULLETINS AND BOOKS OF INTEREST TO PRODUCERS 125

Statistics—Economics—Markets

PRODUCTION CLIMB WILL COMPEL LOWER PRICE 39
By Kent Ridley
APRIL PRODUCTION AVERAGE BELOW MARCH FIGURE 41
By A. R. McTee
FLUSH OIL MOVING IN PREFERENCE TO SETTLED PRODUCTION 46
By Royce Munsell
TEXAS COMMISSION CALLS PRODUCTION CONFERENCE 48
SOUTH TEXAS INDUSTRIES USE MUCH NATURAL GAS 58
By Wallace Davis
PROGRAM PROVIDES INTEREST FOR EVERY GAS MAN 67
UNITED STATES DAILY AVERAGE PRODUCTION, AMERICAN PETROLEUM INSTITUTE FIGURES 82
CRUDE OIL PRICE QUOTATIONS FOR ALL DOMESTIC FIELDS 88
IMPORTS AND RECEIPTS OF CALIFORNIA OIL AT ATLANTIC PORTS 90
SUMMARY OF FIELD OPERATIONS FOR APRIL, 1927 98

News—Features—Editorials

SOUTHWEST DIVISION IS STRONG UNIT OF GAS ASSOCIATION 66
By George McQuaid
"SQUEAKS" FROM THE BULL WHEEL 128

Field Development—Explorations

SECOND PRODUCER INDICATES GOLETA IS VALUABLE FIND 43
By Wm. V. Gross
EIGHT WELLS SEND SEAL BEACH UP TO 59,645 BARRELS 45
By Wm. V. Gross
SEMINOLE PRODUCTION DETAILS 47
MARLAND AND TEXON HAVE SMALL PRODUCER ON 8,800 ACRE TRACT IN HOWARD COUNTY 49
SHREVEPORT AREA AGAIN BUSY AS FLOODS RECEDE 50
HUTCHINSON COUNTY WELL MAKES RECORD PANHANDLE FLOW 53
By H. H. King
WEST TEXAS PRODUCTION DETAILS 64
PANHANDLE PRODUCTION DETAILS 64
COMPLETIONS FOR PAST WEEK IN UNITED STATES FIELDS 83
WILDCAT DRILLING REPORTS FROM ALL IMPORTANT AREAS 92

Published Weekly by GULF PUBLISHING COMPANY
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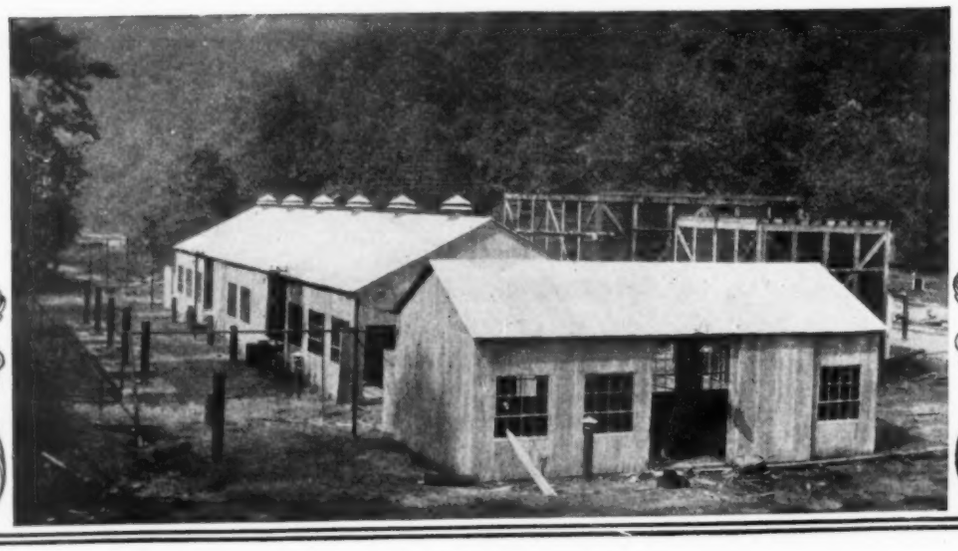
R. L. DUDLEY, *President* — A. L. BURNS, *General Manager* — SPENCER W. ROBINSON, *Editorial Director* — J. KENT RIDLEY, *Managing Editor*

Office of Publication: 1716 Dallas Avenue, Houston, Texas.

NEW YORK: Room 832, 250 Park Avenue, R. P. Swinsky, Manager. PITTSBURGH, 510 Park Bldg., W. W. Pigue, Manager. CHICAGO: 476 First National Bank Bldg., O. R. Waller, Manager. LOS ANGELES: 1201 Haas Bldg., Wm. V. Gross, Manager. TULSA: 214-218 Atco Bldg., J. F. Carter, Jr., Manager. FORT WORTH: 203 W. T. Waggoner Bldg., H. H. King, Manager. Issued Friday of each week. Single copies 10 cents. Subscription price, Domestic $1.00 a year, Foreign $2.00 a year. Subscription restricted to those engaged in the producing and pipe line branches of the oil business or the manufacture and distribution of oil field supplies. Advertising rates on application.



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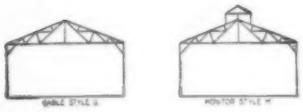

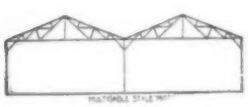

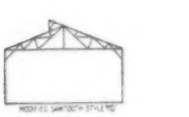

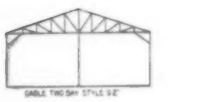

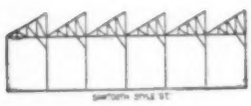

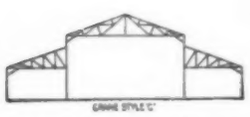

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Say you saw it in The OIL WEEKLY

Production Climb Will Compel Lower Prices

Slackened demand causes further curtailment of refinery throughput while production continues upward

By KENT RIDLEY

What of West Texas?

While there is a very decided over-production of crude oil at this time, the Seminole field in Oklahoma, a field of many surprises and unexpected performances, may be said to be producing the amount of crude that stands between present low prices and fair prices for oil.

What Seminole will do during the next few months will no doubt play a big part in the price situation during the remainder of the year.

It is inconceivable that Seminole should continue her present production for a period of very many more months, and if Seminole, likened to a man kept going by drug injections, does start slumping, it is reasonable to expect the slump to be a rapid one.

All of which would give the present outlook a more promising aspect were it not for one thing.

E. W. Marland expressed it in a recent interview. Other executives recently have expressed it also.

It is the fear that certain sections of West Texas will step into the shoes of Seminole within the next few months. That some of the new fields in West Texas can be made to produce a tremendous amount of oil, at the will of the operators, is not to be doubted.

The question is—"Will those operators *will* to produce it?"

In some sections the leases are held in such a way as to permit the ready control of production. In other sections, no such control can be exercised.

It may be said, therefore, that it is much the fear of new overproducing fields, as it is the present over-production, that worries the petroleum executive today.

THE whole petroleum market now presents an effort to hold prices at present levels in the face of the excess of production coming from Seminole. May 1 was expected to bring reductions in gasoline tank wagon quotations throughout the Middle West, to be followed by another drop in crude prices in the Mid-Continent. So far such move has not been made. Flood conditions over a large part of the consuming territory is having its effect upon gasoline consumption, although fortunately for the industry, the devastated area is not so large a consumer as some other regions of equal area. On the other hand muddy roads from rains which made the floods in upper sections has restricted automobile traffic.

Flood conditions and slack export demand has been assigned by the Standard Oil Company of Indiana as the reason for cutting refinery runs at Casper, Wyoming, from 38,000 to 20,000 barrels daily. It was said by company officials that the condition is temporary because of lack of demand for gasoline due to almost impassable highways, floods and falling off of export orders. This company has been shipping about 10,000,000 gallons per month to the Standard Oil Company of New Jersey for export through Baton Rouge, Louisiana. As has been mentioned in previous reports, cracking units have been curtailed in most of the large plants of the country, and the late issue of The Lamp, spokesman for the Standard Oil Company of New Jersey, speaks of its action in closing down such units because of conditions.

While the rest of the country is basing its hopes on holding the gasoline price from going lower, California producers are hopeful that their crude prices will hold following an increase in gasoline prices which is believed to be imminent there.

Refiners Curtail

Further curtailment of refinery operations in the North Texas district has taken place lately owing to the failure of the major pipe line companies to meet the last two crude price reductions posted by Magnolia. North Texas refiners are unable to obtain crude on the Magnolia schedule, which is not recognized in the district as the market price, while a 10 cent premium is being paid by all the plants for crude purchased. Prices on gasoline and burning oils have practically discounted the expected general crude cut, but refiners are not receiving the benefits of the bottom price oil crude, thereby leaving little profit, if any, on current plant operations. North Texas refiners are fighting to uphold current price quotations on gasoline and burning oils, with the U. S. motor grade of gasoline commanding a price of about 6¼ cents per gallon, while fuel oil ranges from 85 to 90 cents. The latter product strengthened slightly early this week in sympathy with a large order placed for prompt delivery.

Production Peak

Continued defiance among producers of the present market weakness prevailed the week past with the daily run of all United

DETAILS ON CRITICAL FIELDS

Pool—	Oil Wells Completed	Total Initial Production	Initial Per Well	No. Producing Wells	Daily Production Barrels	Daily Production Per Well	Rigs Up	Wells Drilling
PANHANDLE—								
Hutchinson County	919	491,305	535	855	100,530	118	29	155
Carson County	120	44,295	369	120	12,085	101	6	53
Gray County	122	33,300	273	118	7,300	62	6	40
Wheeler County	31	11,730	381	28	3,245	116	4	20
Totals	1,192	580,630	487	1,121	123,160	109	45	268
WEST TEXAS—								
Church & Fields	58	64,805	1,117	57	34,330	602	19	21
Gulf-McElroy	18	18,850	1,047	18	10,350	575	2	6
Totals	76	83,655	1,101	75	44,680	596	21	27
OKLAHOMA—								
Seminole District	435	498,916	1,146	388	346,143	891	16	347
CALIFORNIA—								
Seal Beach	45	86,042	1,912	36	59,645	1,656	24	145

States fields reaching a new high peak with 2,499,950 barrels.

Two fields were primarily responsible for this gain. Seal Beach came through with the phenomenal rise expected for some time, reaching 50,000 barrels as compared with 36,000 barrels of the previous week, and with the aid of minor gains in other sections brought California to a 17,200 barrel lead over the week before. Earlsboro gained 9,400 barrels during the week, taking the place of Seminole's former rapid increases while Seminole proper registered a loss of nearly 1000 barrels.

Simultaneously with these spectacular production "highs" Salt Creek, Wyoming, came in for an increase of 4750 barrels, while the Texas Panhandle, again on the increase after a winter lull, offset other losses in Texas fields outside the Gulf Coast and on top of this made a 2850 barrel gain for this area. The Eastern States continued on its trend upward with a 1500 barrel increase.

Large drops in the Gulf Coast, both Texas and Louisiana, prevented a much greater margin over the previous week. A slump in the daily average at Spindle Top, together with a general decline through Southern Louisiana, brought this vicinity of 151,700 barrels average, down 8,000 barrels. Arkansas dropped 4500 barrels due to the flood situation, practically all of which was in the Smackover heavy district, and North Louisiana was down 2750 barrels for the same reason. Since flood waters have disturbed the Smackover heavy district the daily average there has been lowered from around 98,000 to 79,600 barrels with indications of going even lower. The falling production in North Louisiana was fairly general. Declines in the South Louisiana fields are not resulting from the flooded condition, however, this section being too far west of the overflowing streams. Churchill field was the principle loser in Kansas during the week, which brought the daily average to a 750 barrel loss.

STRATIGRAPHIC PRODUCTION of PETROLEUM

OIL PROVINCE - COUNTRY	PRODUCTION TO DATE JANUARY 1st 1927 BARRELS			PRODUCTION 1926 BARRELS
	PALEOZOIC	MESOZOIC	TERTIARY	
APPALACHIAN	2 265 228 000			27 272 000
E. MISSISSIPPI VALLEY	EST. 593 500 000			11 900 000
KANSAS	426 106 000			41 346 000
OKLAHOMA	1 983 139 000			177 651 000
TEXAS PANHANDLE	25 424 000			24 251 000
N. CENTRAL TEXAS	PART EST. 506 314 000			50 859 000
W. TEXAS	26 951 000			16 484 000
GULF CRETACEOUS - E. TEXAS		PART EST. 252 100 000		31 063 000
GULF CRETACEOUS - ARK. & LA.		339 716 000		78 712 000
GULF COAST			579 349 000	32 994 000
ROCKY MOUNTAIN		293 878 000		37 713 000
CALIFORNIA			2 509 665 000	224 448 000
CANADA	23 832 000			129 000
MEXICO		1 407 083 000		90 320 000
VENEZUELA			73 710 000	37 299 000
TRINIDAD			33 454 000	3 500 000
COLOMBIA			8 710 000	6 444 000
ECUADOR			EST. 1 150 000	350 000
PERU			72 998 000	10 751 000
ARGENTINE			32 523 000	6 500 000
FRANCE - ALSACE			3 879 000	550 000
GERMANY - HANOVER		17 758 000		600 000
ITALY			1 276 000	45 000
GALICIA - POLAND & CZECHOSLOVAKIA			202 296 000	5 650 000
ROUMANIA			247 971 000	23 500 000
RUSSIA			2 164 084 000	62 000 000
PERSIA			217 392 000	35 400 000
EGYPT			14 217 000	1 250 000
ALGERIA			95 000	12 000
INDIA			171 620 000	8 000 000
JAPAN & FORMOSA			53 709 000	1 820 000
EAST INDIES			337 145 000	26 200 000
TOTALS	3 852 514 000	2 310 453 000	6 747 173 000	
TOTAL WORLD PRODUCTION			13 110 142 000	

E. JULIUS FOHS
OIL GEOLOGIST
NEW YORK

Trend Upward

It is indicated if production changes during the month it will be upward, so the amount of oil in sight and prospects do not favor continuation of present prices. But a general cut to meet the Magnolia schedule has been expected so long in Oklahoma and Kansas that producers are taking hope that the purpose is to hold gasoline prices up and that the present crude schedule is part of the effort. It has been made evident that lower prices will not decrease crude yield until Seminole hits a decline. With lower prices, profit can only come from flush wells, and in the case of Seminole, despite the general impression of low gas pressure in the original area indicating a probable rapid decline, flush wells are still plentiful in prospect. Also West Texas and the Panhandle are in position to continue producing oil with small regard for values as they are generally understood. If price makers anticipated that the lower prices would decrease yield, it has now become evident that they have met disappointment. The situation has an analogy in the river flood situation—the higher the levee is built the greater the weight of flood brought against it.

Pipe Lines

Magnolia Petroleum Company is facing need for more pipe line capacity because of the volume of oil taken from Oklahoma and it is expected that that company will soon announce plans for enlarging its line out of Oklahoma to Beaumont, via North Texas and Corsicana. Present capacity of the line is 35,000 barrels and receipts of the company in Oklahoma and Kansas approximate twice that volume, making the enlargement practically a necessity.

Another direct pipe line outlet for Texas Panhandle crude was completed and placed in operation late last week when Humble Pipe Line Company finished its 325 mile 10-inch line in record time from Comyn, Comanche County to its Burnett Ranch tank farm in Carson County section of the Panhandle. The Gulf Magnolia jointly owned 10-inch carrier to the Panhandle from Eastland County has been completed since April 15, but crude has not been moved through the Magnolia's section of the system, owing to blasting taking place for the trench. Although Humble has the longest line and was the last to start construction work, the company will be the first to deliver Panhandle crude to market centers. Prairie's eight-inch carrier is due for completion shortly.

Substantial production gains have been registered lately in the Texas Panhandle due to the completion of

(Continued on page 60)

April Production Average Below March Figure

Flood conditions responsible for slump bringing daily average down; field statistics show big gain

By A. R. McTEE
Staff Representative

IN spite of low crude prices throughout the country and extreme flood conditions in parts of the Mid-Continent, the daily average recovery of oil for April was reduced only 2836 barrels as compared with March. The total yield of all fields for the month was 73,999,940 barrels, or 2,466,664 barrels daily.

During most of the month, the daily average held close to 2,478,000 barrels. During the third week, however, there were sufficient declines, principally from Smackover, which field was largely under water, to bring the average down to 2,452,500 barrels, with the resulting influence on the daily average for the month.

During the last week of the month, the daily yield was reported by the American Petroleum Institute at 2,478,100 barrels. Compared with the last week in March, this represents a gain of 16,150 barrels.

Owing to the extra day in March as compared with April, the April totals are lower than those for March, Kansas only showing a gain of 70,625 barrels.

Field work for the two months shows a heavy gain in favor of April. The number of completions was 584 more that in March. This increase included 379 producers, 61 gas wells, and 44 failures. Initial production also gained 151,058 barrels.

The so-called critical fields which include Seminole, in Oklahoma, Seal Beach, Huntington Beach and Ventura Avenue, in California, and the Texas Panhandle, remain unchanged. Seminole is still the key to the Mid-Continent situation, although in the minds of many operators it is merely a matter of time until the balance of power will swing to the Panhandle and West Texas districts. The completion of new pipe line outlets to the latter sections during the month, with others that are soon to be finished, lend strong support to the belief that the Texas fields can take up where Seminole leaves off when this phenomenal field does begin its decline.

APRIL U. S. PRODUCTION

The following is the gross estimated production of crude oil in the United States for April as compiled by the Oil Weekly:

Arkansas	3,536,860
California	19,195,500
Eastern States	3,202,500
Kansas	3,470,100
Louisiana	2,080,220
Mountain States	2,603,250
Oklahoma	21,586,500
Texas	18,325,010
Totals	73,999,940
March	76,554,610

UNITED STATES FIELD STATISTICS

Following are the completions showing producers, gas wells, failures, and initial production of crude by states, for the month of April, as compiled by the Oil Weekly:

Arkansas	37	14	7	16	1,526
California	82	79	..	3	42,840
Illinois	11	9	..	2	345
Indiana	25	9	2	14	325
Kansas	151	82	15	54	13,027
Kentucky	85	68	2	15	2,974
Louisiana	86	34	8	44	19,048
Michigan	24	24	..	..	1,335
Mountain States	69	56	2	11	36,062
New York	38	36	2	..	112
Ohio	172	109	39	24	4,721
Oklahoma	459	259	40	160	149,278
Pennsylvania	254	226	20	8	808
Tennessee	7	7	..	..	845
Texas	847	529	38	280	198,158
West Virginia	118	28	61	29	773
Totals	2465	1569	236	660	472,177
March	1881	1190	175	516	321,119

Texas

Widespread efforts to curtail production in the upper part of Texas failed as result of the completion of unusually large flowing wells in the Panhandle and West Texas areas, while the shallow oil sand in Brown County contributed a quota of large wells. Field operations have been reduced in volume in all the districts as result of the series of crude price cuts since February 22, but new completions have shown a higher initial average during the period that drilling was desired to be restricted.

The Panhandle resumed its upward trend as result of heavy completions in Hutchinson, Carson and Wheeler Counties, while a new flush field was opened in eastern Gray County by M. M. Travis et al's wildcat on the Mrs. J. D. Back land with a flush output of 1500 barrels at 2845 feet. The Cockrell Ranch area in Hutchinson County furnished a new flush producing district for the county with several wells making 100 barrels hourly from regular sandy-lime pay at the 3000-foot level. Dixon Creek Oil Company, Prairie and others scored big producers in the older sections of Hutchinson County. The northeastern part of Carson County also came into its own with a number of big wells on virgin leases held by Prairie, Gulf, Skelly, Roxana, McMan and The Texas Company. This new production sent Carson County production to a new peak level. The Shamrock field, Wheeler County, shared in the big production, and added 4610 barrels from 10 producers. Approximately 465,000,000 cubic feet of gas was added to the Panhandle daily output of this product during April.

The Church and Fields area in Crane County contributed a large amount of new production for the West Texas district, and climbed to a peak production of about 35,000 barrels daily. This field is now practically linked up with the Gulf-McElroy field on the south, and is the largest producing area in the district. The producing acreage is practically defined, and new production is not offering the flush volume that appeared early in April. The McCamey-Hurdle district in Upton County was extended more than a mile to the southeast by Prairie's 500 barrel flowing well on the Allie Lane land, and has revived activity wildcatting in a general southeast direction from production. Field work in this general area was being noticeably curtailed, but Prairie's wildcat strike caused Dixie and Gulf to make offset locations, while other nearby lease owners are starting tests.

The Hendricks field in Winkler County added a new producer when the Southern Crude Oil Purchasing Company's Hendricks 1-C, south offset to discovery well, gauged 1050 barrels at 2908-88 feet, and a number of new locations have been made. However, a few of the operators have agreed to drill to the top of the pay and shut down until crude market conditions are more favorable. A new oil producing area from the deep lime pay in Howard County was uncovered late in the month when the Marland and Texon Oil and Land Company's J. B. Harding 1, section 19, block 33, Tsp. 1-S, filled partly with oil from lime pay at 3163-3220 feet. Casing is being set to drill in this wildcat.

The Fry district in Brown County came through with a large quota of big

PAST TWELVE MONTHS

The record for the past twelve months is an interesting study for comparison purposes, the following table giving field statistics for all states in the Union.

Month—	Completions	Producers	Gas Wells	Failures	Initial Prod.
April, 1926	2,311	1,468	224	619	317,173
May	2,082	1,250	179	653	256,114
June	2,188	1,365	178	645	231,473
July	3,068	1,919	287	862	358,646
August	2,368	1,507	206	655	361,165
September	2,480	1,602	217	661	318,787
October	2,916	1,914	264	738	449,081
November	2,405	1,473	279	653	430,847
December	2,754	1,774	301	679	469,242
January, 1927	1,989	1,257	192	540	315,948
February	1,965	1,215	225	525	284,016
March	1,881	1,190	175	516	321,119
April	2,465	1,569	236	660	472,177

wells, including several making above 2000 barrels daily from the 1300-foot sand on leases held by the J. K. Hughes Development Company and James McKanna on the Shore farm. Eastland County added more new production in April than has been scored in months, owing to the successful completion of a number of wells in the Morgan-McAllister field, and a 2300 barrels well in the upper part of the county. Shackelford County's new production was on the decline owing to tests being shut down on top of the sand in the Cook Ranch shallow field, where Roeser-Pendleton and Marland Oil Company have about one dozen tests held back for better crude prices.

The deep lime pay in the South Bend field, Young County, topped the list of big producers for April with an initial output of 6600 barrels of high gravity oil when E. C. Stovall's Fee 5 drilled eight feet of pay to 3900 feet. This well came in April 11 and was holding at 3000 barrels daily at the close of the month. A few new tests have been started on the strength of this big producer, which is producing from a horizon that has been established for a few years.

North Texas

The North Texas district centering around Wichita Falls showed the effects of crude market conditions with a noticeable drop in field work. Wichita, Wilbarger and Montague Counties contributed fewer completions Cooke County continues to make strides on development, and is being watched closer for new oil strikes than the older producing counties in the North Texas district. Cooke County made gains in production through the development of a lower and more prolific oil sand in the Muenster Townsite field.

Fanet Region

Other than a small show of oil developed from the Pandem Oil Corporation's wildcat test near Kosse, the East Central Texas fault region remained quiet over the past month. The Pandem wildcat is still at an uncertain stage as to making a producer, but a successful strike would have a bearish effect on the Mid-Continent crude market, owing to the past history of the fault line fields.

Gulf Coast

Production in the Texas Gulf Coast and the Southwest districts did not vary greatly through April. Although the tendency for the Coastal section was slightly downward, the daily average was better than 155,000 barrels. Drilling throughout his section has been curtailed until there are about a third less rigs in operation now than at the beginning of the month.

Humble Oil and Refining Company got its first oil in Austin County, with an 18 barrel producer. The oil is of such heavy gravity, however, that it is difficult to handle. Possibilities of deeper sands are now being tested, with one well drilling below 2800 feet.

Oklahoma

Despite low prices, development of the Seminole district during the month continued at a fast pace. It is virtually the only source of flush production in the State, and this is apparently why, given the low price, it is being worked so hard.

There is a very definite tendency on the part of operators owning both Seminole flush production and pumping wells in older fields to shut down the pumpers and meet their crude requirements so far as possible with the flush oil from the Seminole field.

The bulk of the new oil in the Seminole district is coming from the Earlsboro and Bowlegs sections. Both of these fields are taking precedence over the older Seminole City field proper because at the latter place the oil must be lifted in most cases with a gas or air lift by virtue of the low pressure and the small volume of gas associated with the oil in the pay. At Earlsboro and Bowlegs, on the other hand, most of the wells make sufficient gas to produce by natural flow.

The active development in and around both of these districts has not only increased their respective production but it has also opened up considerable territory which promises additional large flush production.

The outstanding result of the work which has been going on at Earlsboro is the re-opening of the territory northwest of the field for further testing. In this territory, at the southwest corner of the northwest of 9-9-5, J. E. Crosbie has a well good for around 500 barrels an hour from the Wilcox pay with his Bryant 1.

The wells completed in the Bowlegs district during the month brought the total number of producing wells there to 37, and the daily average production to some 75,000 barrels. Wells now drilling and due for completion during the coming month considerably increase this figure.

Twelve miles south and west of Earlsboro, near the town of Pearson, in Pottawatomie County, the Pierce Petroleum Company and others have opened up a Hunton lime area with their test in section 30-7-4. The well blew in for an initial production of 3000 barrels. There was some talk for a time of holding back the development of the district until the crude market becomes better, but no concerted action resulted and development is going ahead.

Kansas

A feature of the month's work in Kansas was a show for production found in the western portion by the Berry Petroleum Company with its Burken 1, in the northeast corner of the northwest of section 19-32-5, Harper County. The show is in a sand at 4235 feet, the identity of which has not been definitely determined.

The Lost Springs district of Marion County, Kansas, was given a boost when the discovery well, the Winter & Harwood-Phillips Petroleum Razineck 1 in the southwest corner of the northwest of section 22-17-4, increased its production from 30 to 100 barrels daily after being deepened. The well was originally producing between 2386-2409 feet. The present total depth is 2417 feet.

Floods caused by heavy rains during the month hampered field work a great deal. The Churchill field of Sumner County was particularly hard hit by flood waters.

Louisiana

New developments in Louisiana were concentrated in a few districts, confined to the northern part of the State. In the Plain Dealing-Carterville section, Bossier Parish, the Louisiana Oil Refining Company was trying to regain control of its Blanton well at the end of the month. This producer came in early in April, flowing 1000 barrels daily. It was closed pending the erection of storage and when opened again, made very little oil with a great deal of salt water. After being closed in for the second time and fitted with proper flow connections, it was opened and came back with such strong gas pressure that the Christmas tree was cut away and the liner blown out of the hole. Attempts are now being made to set smaller casing.

Three new producers were added to Pleasant Hill, by the Arkansas Fuel Oil Company, and drilling of acreage held by other companies will probably follow. The district is handicapped, however, on account of a lack of fuel. Therefore development will have to be slow.

Lockport, in Southern Louisiana, increased its output this month, but inasmuch as the field is controlled by two companies and is being drilled cooperatively, development is slow. During the month the first shipment of oil by tanker from docks near the field was made, a factor which will undoubtedly greatly influence future exploitation of the area.

Daily average production at Seal Beach, California, increased approximately 8000 barrels during the last week in April, and gives promise of reaching 50,000 barrels early in May. The peak for the Seal Beach area which embraces Alamitos Heights and Naples, is set at 75,000 barrels per day by the end of July.

Central and Eastern States slumped in total output but showed slight gains in field work.

Details for all U. S. Fields in April found on page 98.

The scene of California's newest high gravity oil field, Goleta. Two of the wells are yielding 42 plus gravity oil which is running 65 per cent gasoline, 20 per cent kerosene and 15 per cent light lubricant stock. The wells are on the Miley Petroleum Exploration Company's Tecalote ranch lease.

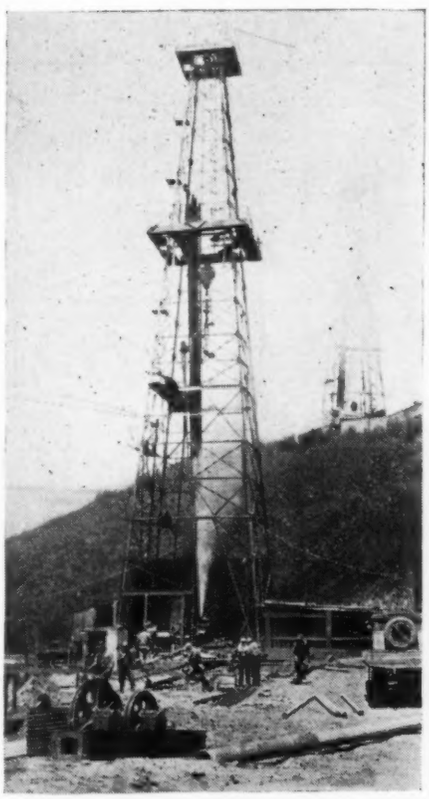
Second Producer Indicates Goleta Is Valuable Field

By WM. V. GROSS
Staff Representative

LOS ANGELES. — Opinions expressed early in March when the Miley Petroleum Exploration Company brought in Goleta 2 for 400 barrels of 43 degree gravity oil "that the area would be likely to play a prominent role among determinants of California price structures applicable to higher gravities" have been partially substantiated. In the same practically virgin area of Santa Barbara County this organization has completed one of the most valuable oil wells in the State.

On April 24, Goleta 4 came in "barefooted" for an initial production estimated at 750 barrels of 42 plus gravity oil, running 65 per cent gasoline, with the remainder of the yield being about equally divided between light lubricant stock and kerosenes. At this writing, the flow had settled to a consistent 530 barrels daily, with the percentages of gasoline, kerosene and light lubricant stocks remaining constant. Along with the oil coming from 14 feet of open hole between the bottom of the 8¼-inch casing at 1442 feet and the bottom of the hole at 1456 feet, Goleta 4 is making a million and a half cubic feet of the richest gas yet produced on the Pacific slope.

Goleta 2, discovery well of the field, has a daily output of 230 barrels of the same type of oil coming from 1339 feet. The well is about seven weeks of age and is maintaining a good yield rate, considering that it, too, is a "barefoot" job. Both wells perhaps might have done better in their early stages had a few more feet of hole been made and some tubing and a packer been used, it has been suggested. Both, however, like the birth of the traveling man's bouncing baby boy, were totally unexpected.



Oil coming out of Goleta No. 4 carries so much gasoline and kerosene that it looks like steam. The well has been called the "Gasoline Gusher". It is flowing 530 barrels per day.

Extent of Area

The new well is located on what is presumed to be the top of the axis of the structure which theoretically runs east and west through the region designated by the U. S. G. S. as Los Dos Pueblos. This presumption has been given strength by the difference in pressure and completion-time behavior between Goleta 4 and the discovery well, which had a flush estimated at only 400 barrels. Neither of the two producers is considered to be drawing upon the entire sand, the thickness of which is not known. Consequently any statements as to their respective potentialities in case they were deepened to the bottom of the sand would be conjectures at best. Obviously, though, the structure ought to be capable of greater flush per individual well than has been indicated by the calibre of either Goleta 2 or Goleta 4, which came in before they were ready to be brought in.

According to lease activities and geological opinion, the speculative area, created by Miley's discovery and a lit-

tle labor on the part of God when he made the beautiful place, may be said to extend about four miles east and four miles west from the present point of production. Its north and south width has been roughly put at about three miles. Of course, a field of this magnitude would be quite a novelty in California, but it is not altogether improbable that it will cover a fourth of the speculative area.

Parties Interested

Goleta findings of Miley have proven attractive to others. Four concerns have taken acreage in the immediate vicinity of the new producers. Others have leased remote protection acreage and remote acreage for rapid turnover to producing companies in the event of continued extensions of the field or in the event of a change in the structure's trend, it is understood.

Offsetting Goleta wells on the east is a large tract held by the Transcontinental Oil Company, which has started work on one well. To the west of the Miley holdings is a tract held by the Joseph B. Dabney Interests. C. J. Berry and the California-Eastern Oil Company, (formerly Julian Petroleum Corporation) are represented in the immediate vicinity of the producers and each has begun preparations for drilling a well. All tracts on the map marked "A," "B" and "C" are held by companies with which E. J. Miley is associated. Graham-Loftus Oil Company and the Santa Barbara Oil Company are also interested in the vicinity.

Exploitation of the Goleta structure started in 1920 when Mrs. Miley had a "hunch" oil some day would be found on the Tecalote ranch, which is about 17 miles west of Santa Barbara and 40 miles from the nearest commercial production of any importance, that of Ventura Avenue. Geological work on the area subsequently resulted in recommendations to drill. In December, 1926, Miley spudded in Goleta 1 for a deep test.

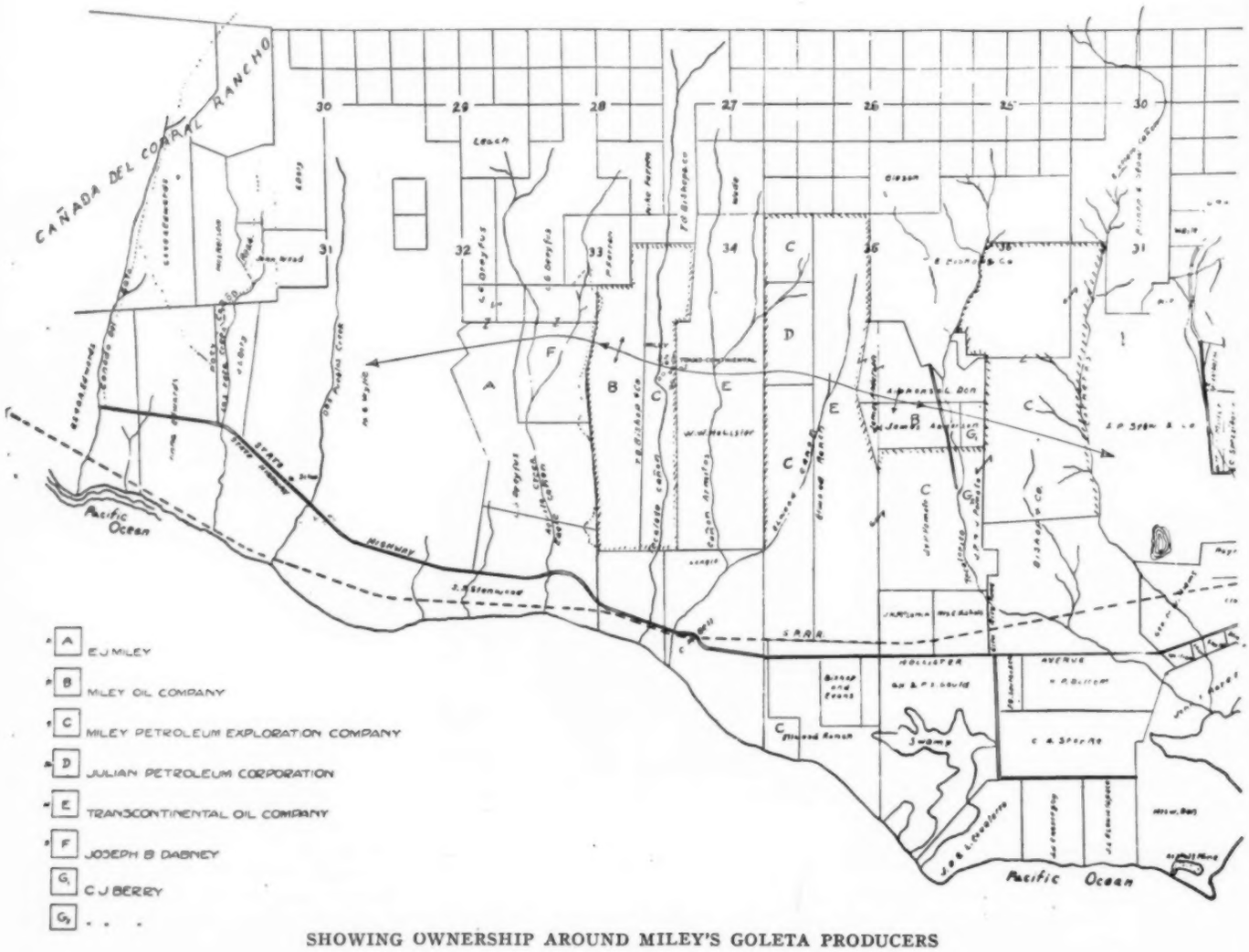
Two Sands at Goleta

Two sands have been found by this deep test. A shallow sand which carries even lighter oil than that from which Goleta 2 and Goleta 4 are producing, was penetrated at 500 feet. The second sand was found in Goleta 2 at 1339 feet and in Goleta 4 at 1442 feet. (The latter is 500 feet southeast of Goleta 2.) Indications are pretty fair that the area will yield a third producing horizon, according to field reports. Goleta 1, the deep geological test, at 3126 feet, was drilling in a hard blue shale streaked with sand and indications for deep production are said to be anything but discouraging. Goleta 1 is 500 feet north of the latest completion. Goleta 3, located about 1000 feet west by about 10 degrees south of No. 1, has been abandoned at 639 feet, as the well was drilled only to determine the location of the fault.

As has been pointed out previously, the value of Goleta oil is obvious. A well that will produce commercial quantities of oil that is 65 per cent gasoline, 20 per cent kerosene and 15 per cent lubricant stock, is valuable at any depth. One that will produce oil of this quality from 1456 feet is extremely valuable, especially if it is so located on property that conservative development, without fear of the necessity of drilling too many offsets, is encouraged. Present market conditions in California and the nature of holdings at Goleta practically assure conservative development for the time being at least.

Kramer Pool Extension Well Has Show

Tulsa.—The Kramer pool, south of Leon, Kansas, has been extended to the southeast by the Mid-Kansas Oil and Gas Company Gilson 1, in the northwest of the southwest of the southeast of 3-28-6. The well topped the Leon lime at 2936 feet and while drilling to 2942 feet, filled up several hundred feet with oil.



SHOWING OWNERSHIP AROUND MILEY'S GOLETA PRODUCERS

Eight Wells Send Seal Beach Up to 59,645 Barrels

Flush production increases output faster than previous forecasts provided; 75,000 peak may be exceeded

By WM. V. GROSS
Staff Representative

LOS ANGELES.—With 22 wells standing cemented in the Selover sand on April 30 and a present daily average production in excess of 59,000 barrels, indications are that Seal Beach field, the most active spot in California, will not only reach its peak before July 1, but will support a peak production figure considerably greater than the predicted 75,000 barrels.

If this theory is substantiated by behavior of completions during the next two weeks, it will have a marked effect upon the trend of local field activity as well as upon the market. This will be felt in several channels.

In one instance the movement started by the Union Oil Company to rebuild vast storage facilities destroyed by lightning and fire last year is likely to become general with many companies who would rather store oil than sacrifice it on a sick market. Unless the majors surprise the producers with an upward revision of the crude price structure, it appears that those smaller concerns producing at Seal Beach are going to have to dispose of their oil at prices below the existing low schedule —if they can dispose of it at all.

Generally speaking, the other alternative is a shut-in policy, and it would be a bitter pill for the little producer to swallow if he had to shut in his wells on account of lack of storage, while the big operator on the offset lease, with lots of storage, was blithely letting the oil drain from the sands into his spacious tanks.

How much the anticipated increase in gasoline prices will be reflected in the crude situation is not known, but too much importance cannot be attached to gasoline prices until Seal Beach has started on the downward trend. Unless a new sand is found or extensions are made to the field, the peak can not be far off—say not later than June 20. That's considered conservative, locally.

19,000 Barrels Flush

During the week ending April 30, eight producers with an aggregate initial estimated at 19,090 barrels, brought Seal Beach's daily average production up from 42,750 barrels to 59,645 barrels. With 22 wells standing cemented in the Selover sand and two standing cemented in the Bixby sand, the flush for the week ending May 7 ought to be equally as great, provided the wells are of the average Seal Beach calibre. And while the area is too young for reliable decline hypothesis to be drawn, this anticipated flush ought to bring the average production up to nearly 66,000 barrels.

Wells brought in during the week include the California Petroleum Corporation's Alamitos 1 and Alamitos 4, which made 2500 and 2000 barrels flush, respectively, giving the company its first production at Seal Beach. These wells at respective depths of 4673 feet and 4693 feet are Selover sand producers. Both show tubing and casing pressures well above 400 pounds.

Paul Getty's production in Alamitos Heights sector of Seal Beach was raised well above 10,000 barrels per day by completion of his Alamitos 2 for an estimated 4000 barrels. The well had a depth of 4690 feet and the 8⅝-inch casing was set at about 4678 feet. His father, George Getty, brought in his No. 2 well for an initial estimated at 1990 barrels of 27.8 gravity oil. The last string of casing was set in George Getty's No. 2 at 4646.

H. J. Barneson's Tincher 1 was listed as a completion last week, but was not opened up until this week. It is going 2050 barrels from 4767 feet, with the 8¼-inch casing cemented at 4738 feet. Casing and tubing pressures on Tincher 1 read 700 and 350 pounds, respectively.

E. J. Miley's Alamitos 1 was brought in for 3100 barrels of 27.2 gravity oil from 4678 feet with the 8⅝-inch casing cemented at 4650 feet. (Associated Oil Company is taking Miley's oil.) The Associated's Bryant 4 came in "barefooted" from 4668 feet for 2100 barrels. Bryant 4 has the 6¼-inch casing cemented at 4551 feet and is producing 27.9 gravity oil. On the San Gabriel Improvement Company property, the Standard Oil Company of California brought in No. 10 for 1350 barrels at 4729 feet. The well is producing 26.3 gravity oil and has the 4¼-inch landed at 4729 feet.

Among those in position to take care

(Continued on page 62)

Company	Drilling	Rigs	Locations	Producers	Operations	Prop.
Ahlburg	..	1	..	..	1	....
Aitkin, Fred	1	..	..	..	1	....
Associated Oil	5	4	3	5	17	7,745
Bailes, Tom	1	..	..	..	1	....
Bankline Oil Company	1	..	..	..	1	....
Barneson, H. J.	..	1	1	1	3	2,050
Boatright	..	1	..	..	1	....
California-American Oil Co.	1	..	1	..	2	....
California-Eastern	12	4	5	..	21	....
California Pet. Corporation	9	..	..	2	11	4,500
Coastal Oil Company	1	..	..	..	1	....
Dell Oil Company	..	..	1	..	1	....
Dill-Comstock	2	..	..	..	2	....
Dominguez Extension Oil Co.	1	..	..	..	1	....
Dutton	..	..	1	..	1	....
Erwing, Fred	2	..	..	..	2	....
Fisher, Henry	..	1	1	..	2	....
Fleet Petroleum Corporation	1	..	..	..	1	....
General Petroleum Corporation	10	..	2	..	12	....
Getty, George	9	..	1	1	11	1,990
Getty, Paul	3	..	1	3	7	10,700
Hart & Company	1	..	..	..	1	....
Hauser Petroleum Corporation	1	..	1	..	2	....
Hughes & Richmond	1	..	..	..	1	....
Italo-American Pet. Corp.	1	..	..	..	1	....
Johnson, Al	..	1	..	..	1	....
Loftum Oil Company	1	..	..	..	1	....
Marland Oil Company	21	7	1	9	38	11,450
McCaslin, W. E.	1	..	..	..	1	....
McCoy, Deeds & Cathers	..	..	1	..	1	....
McVey	..	1	..	..	1	....
Miley Oil Company	1	..	..	1	2	3,100
Pannill, M. W.	1	..	..	..	1	....
Petroleum Securities Company	30	..	1	4	35	8,590
Rainbow Petroleum Company	1	..	..	..	1	....
Richfield Oil Company	2	..	..	..	2	....
Ring Petroleum Company	..	1	..	..	1	....
Roberts, Fred	1	..	..	..	1	....
Robertson, J. T.	1	..	..	..	1	....
South Basin Oil Company	1	..	..	..	1	....
Superior Oil Company	5	..	3	..	8	....
Standard Oil Company	2	..	..	10	12	9,520
Travis Drilling Company	1	..	..	..	1	....
Union Petroleum & Drilling Co.	1	..	..	..	1	....
Universal Consolidated Oil Co.	4	..	..	..	4	....
Walker, Fred	2	1	1	..	4	....
Walklin & Peacock	1	..	..	..	1	....
Wallace & Failing	1	..	..	..	1	....
Wheeler, J. G.	1	..	..	..	1	....
White Eagle Petroleum Company	3	1	1	..	5	....
Totals week ending April 23	145	24	26	36	231	59645

Flush Oil Moving in Preference to Settled Production

Seminole operators are delivering new output while wells on lift basis are shut down

By ROYE MUNSELL
Staff Representative

TULSA.—Despite the present low price of crude oil, development of the Seminole district is going on at a fast pace. For a time there was apparently a lull. It was at this time that operators talked of holding back development of new areas, such as the northwest extension at Earlsboro, until the crude market improved. Several agreements were actually attempted, but because of the action of land and royalty owners, and other patent reasons, none were carried to definite fruition.

There is a definite tendency on the part of operators owning both flush production at Seminole and "settled" production elsewhere to shut down the older pumping wells and meet their crude requirements so far as possible with the flush oil from the Seminole district.

This preferential is particularly true of the Seminole district itself. After a time in some districts there the wells have to be produced with the gas and air lift because of the rather rapid dissipation of the low pressure and small volume of gas associated with the oil in the pay.

As new wells with natural flows are brought in, operators handle this new oil first. Despite the fact that the field is being produced at the particular moment right up to its storage and pipe line capacity, there is little hesitancy about going ahead and completing a well that has been drilled into the pay. The bigger the probable flush production the better, apparently. A new 3000-barrel producer means 3000 barrels more of cheaper flush oil and 3000 barrels less of more expensive lifted oil.

The air-gas lift, such as is used in the Seminole district to produce wells that have quit flowing, provides a very flexible means of production control because the output of any given well can usually be increased or decreased without trouble or material loss of efficiency by simply varying the artificial induction of the air or gas, as the case may be.

Peak Not in Sight

There is no indication that the Seminole district has reached its peak. Outside of the older Seminole City field proper, there is much proven and semi-proven territory that has apparently a large potential production. This is saying nothing about a wide expanse of territory that has not been tested as yet, but which no doubt will be in the near future.

During the past week the district reached a peak production of 347,248 barrels. This peak for the entire area came on the same day that the Bowlegs sector made its record production of 75,267 barrels. During the week the Earlsboro sector, the second largest contributor of new flush production, made 59,310 barrels.

The peak at Seminole is still to be found at, or very near, the facilities for handling oil provided by steel storage and pipe line capacity. This has not varied greatly during the past 30 days, which accounts for the absence of any very material increase in output. As it has already been pointed out, the record drilling and producing operations which have been carried on in the district have not directly resulted in greatly augmented outputs because new oil as it is being found is replacing the "older" oil.

Earlsboro Extension.

An important development during the past week which adds to the field's possibilities of producing more oil was an extension made to the Earlsboro field by the Amerada Petroleum Corporation and J. A. Hull with their well in the southeast corner of the southwest of 4-9-5. This well, which had an initial flow of 245 barrels an hour at three feet in the Wilcox pay, is three-quarters of a mile north of production. To the east there is a failure about two miles distant, but the territory to the north and west is by no means defined.

Of particular interest is the showings for production by two wildcats in the Seminole district, one in 16-8-5, in the township south of the Earlsboro field, and the other in 22-7-6, The well in section 16, the Indian Territory Illuminating Oil Company, School Land 1, in the southeast of the southwest, 16-8-5, has its show in the Hunton lime from 4086 to 4097 feet. As this is being written the well is shut down for orders.

The well in section 22-7-6, the Barnsdall Oil Corporation, Harris 1, at the southeast of the northwest of the southeast, has an oil and gas show in the Viola from 4110 to 4147 feet. This test is being held up because of lack of facilities for caring for possible production at this removed point.

The Bowlegs field has production farther to the northwest in the Prairie Oil & Gas Company, Harbor 1, in the southeast corner of the northwest of 10-8-6. This well made 375 barrels of oil in four hours from 11 feet in the Wilcox sand topped at 3980 feet.

The Prairie Harbor will not be drilled deeper until facilities have been provided to handle the expected large production. This well is believed to be running considerably higher on the structure than other Bowlegs wells.

Two and a half miles south of the present Bowlegs production, the Gypsy Oil Company has an apparent producer with its well in the southwest corner of the southwest of the southeast of 33-8-6. There is 3500 feet of oil in the hole from Wilcox sand picked up at 4437 feet. Work at the well has been shut down until pipe line connections are made.

Six Wells on Sand

As this is being written, there are six wells at or near the Wilcox in the Bowlegs field and due to be drilled in during the next few days.

As is to be expected, the natural pressure in the Bowlegs field is going off with the completion of the many new wells. It is reported that three flush producers "quit" during the past week. These are a matter of little concern to operators, apparently, since they will probably be revived as producers with the air-gas lift, and new natural flowing wells are being found to make up the deficiency.

Start Wildcat Campaign In Mesopotamia

Bagdad, Mesopotamia. — The Turkish Petroleum Company will soon start a program of exploration work in the kingdom of Iraq, Asia Minor, according to recent announcements. The concession lies north of Bagdad, in Mesopotamia, and south of Mosul. It is about 150 miles long and some 60 miles wide.

The Turkish Petroleum Company will drill eight deep rotary tests and two shallow cable tool tests as its preminiinary wildcatting campaign. The rotary tests will be drilled to a total depth of 4500 feet unless commercial production is found at shallower depths.

SEMINOLE DISTRICT PRODUCTION

24 hours ending 7 A. M. Apr. 30th.

Seminole City Field

Company, Lease and Location—	No. Wells	Total Prod.
Amerada Petroleum Corporation, Fixico, 23-9-6	4	3,216
Killingswort, 23-9-6	4	1,356
Rentie, 23-9-6	4	2,356
Amerada Total	12	6,928
Atlantic Oil Prod. Company, N. Cudjo, 35-9-6	3	2,013
J. Cudjo	2	155
Atlantic Total	5	2,168
Barnsdall Oil Corporation, Carter, 24-9-6	9	5,214
Jones, 34-9-6	2	4,894
Barnsdall Total	11	10,108
Carter Oil Company, B. Carter, 24-9-6	2	130
F. Carter, 23-9-6	4	1,045
J. Carter, 24-9-6	4	145
R. Cudjo, 35-9-6	3	5,065
W. Cudjo, 34-9-6	1	1,260
Gilliland, 27-9-6	1	1,450
Grisso, 23-9-6	7	4,615
G. Killing, 14-9-6	3	3,230
M. Killing, 23-9-6	8	20,135
F. Knapp, 13-9-6	4	2,310
Lukes, 27-9-6	3	3,890
Simpson, 35-9-6	1	3,890
Strothers, 34-9-6	2	7,265
Vierson, 23-9-6	4	3,425
Carter Total	47	53,965
Empire Gas & Fuel Co., Wilson, 34-9-6	3	3,881
Empire Total	3	3,881
Gypsy Oil Co., Butler, 35-9-6	3	4,827
Carter, 24-9-6	8	3,021
Fixico, 26-9-6	8	180
Harjo, 25-9-6	2	1,315
Wolfe, 26-9-6	5	3,614
Gypsy Total	26	9,957
Independent O. & G. Company, P. Fixico, 23-9-6	3	846
Independent-Garland, T. Fixico, 26-9-6	8	1,602
Independent-Inter Ocean, Jones, 26-9-6	4	826
Independent Total	15	3,274
Indian Territory Ill. O. Co., Bowlegs, 26-9-6	9	4,368
Goodin, 23-9-6	4	845
Harjo, 23-9-6	4	1,060
James, 24-9-6	4	1,283
Reed, 24-9-6	3	32
I. T. I. O. Total	24	7,588
Kingwood Oil Company, Harjo, 22-9-6	5	4,858
Kingwood Total	5	4,858
Mid-Continent Pet. Corp., Rentie, 14-9-6	9	2,645
Tayoche, 24-9-6	7	1,430
Mid-Continent Total	16	4,075
Magnolia Petroleum Co., Franks, 25-9-6	2	1,904
Magnolia Total	2	1,904
Mid-Kansas O & G. Company, Presley, 3-9-6	1	524
Wilkins, 25-9-6	1	890
Mid-Kansas Total	2	1,414
McCullough, Butler, 35-9-6	1	1,975
McCullough Total	1	1,975
Phillips Petroleum Company, Strothers, 27-9-6	1	....
Phillips Total	1	....
Prairie O. & G. Company, Gross, 25-9-6	5	280
Spencer, 13-9-6	1	25
Strothers, 27-9-6	5	5,200
Prairie Total	11	5,505
Pure Oil Company, Strothers, 26-9-6	16	12,386
Strothers "B", 36-9-6	1	413
Pure Total	17	12,799
Roxana Pet. Corporation, Barger, 22-9-6	2	1,678
Lasley, 22-9-6	2	585
Roxana Total	4	2,263
Sinclair O. & G. Company, Carter, 13-9-6	2	50
Cudjo "A", 35-9-6	6	1,785
Cudjo "B", 35-9-6	3	1,685
Fixico, 23-9-6	3	3,450
Sinclair Total	14	6,970
T. B. Slick, Bun, 35-9-6	1	....
Cudjo, 35-9-6	2	2,716
Franks, 35-9-6	7	3,370
Giblet, 35-9-6	1	1,373
Slick Total	11	7,459
Superior Oil Corporation, Cudjo, 35-9-6	4	5,452
Noble, 15-9-6	1	6
Superior Total	5	5,458
The Texas Company, Mayhue, 14,9-6	1	....
Texas Co. Total	1	....
The Tidal Oil Company, Carter, 24-9-6	6	3,285
Fixico,	7	4,235
Harjo, 23-9-6	7	495
Mahardy, 24-9-6	5	825
Noble,	1	....
Tayoche, 25-9-6	2	3,950
Tidal Total	28	12,790
Turman Oil Company, Cudjo, 35-9-6	4	2,856
Grisso, 35-9-6	1	1,182
Jones, 34-9-6	3	7,108
Turman Total	8	11,146
Total Seminole City Field	**269**	**176,485**

SEARIGHT FIELD

Carter Oil Company, Davis, 4-9-6	5	10,525
Frazier, 3-9-6	2	3,830
Kiker, 2-9-6	1	10
Scott, 26-10-6	1	55
Stewart, 34-10-6	2	95
Carter Total	11	14,515
Gypsy Oil Company, Cudjo, 4-9-6	1	1,085
Total Gypsy	1	1,085
Mid-Continent Pet. Corp., Grayson, 34-10-6	3	7,870
Mid-Continent Total	3	7,870
Prairie O. & G. Company, Cannon, 33-10-6	1	....
Carter, 10-9-6	1	35
Houck, 33-10-6	1	15
Kinkade, 33-10-6	6	7,555
Prairie Total	9	7,605
Pure Oil Company, Aldridge, 3-9-6	1	945
Pure Total	1	945
Searight, Youngblood, 33-10-6	3	....
Searight Total	3	....
Sinclair O. & G. Company, Polly, 3-9-6	1	1,425
Sinclair Total	1	1,425
Twin State Oil Company, Jenning, 4-9-6	1	1,575
Twin State Total	1	1,575
H. F. Wilcox O. & G. Co., Cluck, 4-9-6	2	520
Wilcox Total	2	520
Searight Field Total	**32**	**35,540**

BOWLEGS FIELD

Amerada Per. Corporation, Rascoe, 15-8-6	8	10,485
Amerada Total	8	10,485
Atlantic Oil Prod. Company, Jones, 16-8-6	2	165
Atlantic Total	2	165
Carter Oil Company, Bowlegs, 15-8-6	1	2,815
Walker, 15-8-6	1	3,330
Wise, 23-8-6	2	9,410
Carter Total	4	15,555
Empire Q. & F. Company, Lacey, 14-8-6	1	4,061
Empire Total	1	4,061
Gypsy Oil Company, Seminole, 5-8-6	1	....
Walker, 15-8-6	3	7,520
Gypsy Total	4	7,520

(Continued on page 51)

Continued from page 47

Company, Lease and Location—	No. Wells.	Total Prod.
I. T. I. Oil Company, Davis, 13-8-6	2	6,359
Goforth, 15-8-6	3	6,585
Livingston, 15-8-6	3	3,787
Walker, 15-8-6	2	369
Youngblood, 24-8-6	2	5,596
I. T. I. O. Total	12	22,696
Mid-Continent Petroleum Corp., Taylor, 10-8-6	1	4,408
Mid-Continent Total	1	4,408
Roxana Pet. Corporation, Taylor, 16-8-6	1	104
Roxana Total	1	104
Sinclair O. & G. Company, Adam, 22-8-6	1	155
Bowlegs, 22-8-6	1	....
Harjo, 14-8-6	2	9,670
Sinclair Total	4	9,825
Bowlegs Field Total	37	74,819
EARLSBORO FIELD		
Amerada Petroleum Corp., Anderson, 15-9-5	3	9,009
Cowden, 4-9-5	1	6,055
Amerada Total	4	15,064
Barnsdall Corporation, Cudjo, 14-9-5	1	30
J. Davis, 11-9-5	1	210
M. Davis, 11-9-5	1	244
Harjo, 10-9-5	1	133
S. Pack, 10-9-5	1	503
Sango, 1-9-5	1	185
D. Smith, 15-9-5	2	4,904
Sullivan, 10-9-5	1	21
Barnsdall Total	9	6,230
Crosbie, Bryant,	1	6,215
Crosbie Total	1	6,215
Gypsy Oil Company, Boro, 16-9-5	1	....
B. Carter, 11-9-5	2	1,448
Earl, 16-9-5	2	122
Peter, 10-9-5	2	....
D. Smith, 15-9-5	1	....
McFarland, 9-9-5	1	242
State Land, 16-9-5	3	12,172
Gypsy Total	12	13,984
Independent O. & G. Company, Bruner, 10-9-5	4	167
Independent Total	4	167
Independent-Darby, Knapp, 8-9-5	1	2,919
Independent-Darby Total	1	2,919
Magnolia Petroleum Co., Holmsley, 11-9-5	1	6,384
Ingram, 10-9-5	1	64
Lena, 10-9-5	2	452
Seay, 12-9-5	1	off
Simpson, 10-9-5	2	344
Sparks, 11-9-5	3	1,112
Magnolia Total	10	8,356
Mid-Continent Pet. Corp., McKinley, 9-9-5	1	1,120
Mid-Continent Total	1	1,120
Phillips Petroleum Co., Gram, 9-9-5	1	1,097
Phillips Total	1	1,907
Philmack-Marland, Dobbs, 8-9-5	1	3,707
Philmack-Marland Total	1	3,707
Prairie O. & G. Co., Baker, 24-9-5	1	250
Stidham, 11-9-5	1	off
Prairie Total	2	250
Sinclair O. & G. Co., Foreman, 18-9-5	1	off
Sinclair Total	1	
The Texas Co., Ingram, 10-9-5	1	35
Wilmott, 10-9-5	2	155
Texas Co. Total	3	190
Earlsboro Field Total	50	59,299

Recapitulation:

Field—	No Wells	Ttl. Prod.
Seminole City	269	176,485
Searight	32	32,540
Bowlegs	37	74,819
Earlsboro	50	59,299
Grand Total	388	346,143

Texas Commission Calls Production Conference

Austin, Texas.—That the oil and gas division of the Texas Railroad Commission plans to take a hand in aiding production operators in curbing drilling in Texas to the extent of alleviating the over-production situation now existing over the state, is indicated by an announcement of Judge H. E. Bell, chief of the commission, in calling a meeting to be held in Austin May 7, of producers, and fee and royalty owners, for the purpose of analyzing the situation. Judge Bell has notified his force of deputy supervisors over the State to request men in the production end of the business to attend this meeting.

"Texas oil producers have lost $150,000,000 during the past eight months because of overproduction of petroleum," Judge Bell stated in commenting on the present market situation. "Not only are the producers big losers, but the state, itself, will have lost $3,000,000 by the end of the year in gross production taxes, enough to insure six-month school terms for the children of the State, if used as a supplemental appropriation to the school fund.

"Texas today is producing more than 600,000 barrels daily, while Oklahoma is running more than 700,000 and California more than 650,000 barrels," he said. "North Texas fields have glutted the market, overflowed the pipe lines and filled the tanks of the refineries." As an example of the present weakened condition of the crude market he cited instances of where Eastern refineries had cancelled contracts with Texas producers, who were now unable to replace the production on contract at any reasonable price.

Judge Bell believes that the oil men of Texas are in accord now with the recommendations of Herbert Hoover and the conservation commission to the effect that oil operators should be permitted to pool their interests and bring in production as needed instead of following the present cut-throat method of competing with offsets until a field is drained, regardless of the demand.

He explained that when this suggestion was first put forward by the national conservation commission it was opposed by the oil men generally, but that they now are willing to pool their interests under the direction of the railroad commission and permit gradual development of fields. This subject will be the center of the Saturday interest, with a view in mind, according to Judge Bell's announcement, to recommend legislation that would make such a procedure clearly legal and not violative of any anti-trust laws. Under the present system, he pointed out, the owner of a tract of land in the heart of a field is almost compelled to drill offsets on all sides of his land or have his oil drained from under him by his neighbor operator, thus forcing him to drill 100 wells where 10 would be sufficient. If the owners of a field could pool their resources it would stop the competitive drilling and bring about an orderly development of a field, he brought out.

Boggy Creek Well Shows Water When Opened

Houston.—Humble Oil & Refining Company's Elliott-Clark 1, Cherokee County discovery well at Boggy Creek, made 30 per cent water after flownig two hours at a rate of 200 barrels an hour under test Sunday. This production was made through a seven-eighths choker and had a 400-pound flowing pressure. After reducing the size of

the flow to three-sixteenths-inch the well made 88 barrels pipe line oil in 24 hours ending Wednesday morning, at which time the flowing pressure had reduced to 160 pounds.

A drilling program for the purpose of outlining the productive area around the discovery well is under way, Humble having started three rigs, including the Earle & Ragsdale No. 2, a northeast offset, set 10-inch casing at 1410 feet, Reynolds Mortgage Company 1, spudded, and Clemmons 1, across the river in Anderson County, drilling around 1000 feet.

Humble's W. J. Hasal 1, near Posey in Anderson County, was drilling at 3540 feet late last week. Magnolia's Sumners 1, two miles southeast of Ponta, Cherokee County, is reaming out the hole over an oil sand at 4323-29 feet. Orbitt Oil Company's Colman 1, eastern Freestone County, is shut down in shale giving an oil odor at 3509 feet. Porter et al's Austin 1, Houston County, is shut down at 3470 feet, and Cheasman & Reynold's Stone 1, Tyler County, is shut down at 3240 feet after having a gas blowout.

Set Casing for Test in Kosse Wildcat

Mexia, Texas.—Having failed to take a core of the bottom of the hole, the Pandem Oil Corporation's wildcat test on the Bassett farm, near Kosse, Limstone County, is preparing to set and cement a string of 6¼-inch 26 pound casing about 20 feet off bottom. This wildcat attracted interest several weeks ago when a good show of live oil was in evidence on the slushpit while drilling with rotary at about 4590 feet. The hole was bailed April 29 without making a well.

Officials of the Pandem Oil Corporation and Geo. McCamey & Brannon, drilling contractors on the Kosse test, held a conference early this week to make arrangements regarding the completion of the contract of 5500 feet should a producer not be obtained at a shallower depth. McCamey & Brannon have a turnkey contract with Pandem to drill to 5500 feet for $80,000, unless a commercial well is brought in at a lesser depth. The cementing of the 6¼-inch pipe may stand in the way of making the additional 1000 feet of hole, and the amendment of the contract was necessary. The casing is available, but a few days delay will occur pending the arrival of a float valve from California so that the long string of pipe can be floated into position with the maximum amount of safety for the open hole. Eight-inch pipe was cemented at 3714 feet.

The Trinity sand test at Mexia has resumed drilling after recovering three-inch drill pipe, which was dropped while drilling lime at 5650 feet. This test is being drilled on the Jake Steubenrauck farm by E. L. Smith Oil Company et al, and Farrish-Watts & Collins have a turnkey contract to 5500 feet for $90,000. This contract has been completed.

Marland and Texon Have Small Producer on 8800 Acre Tract in Howard County

San Angelo, Texas.—Wildcat efforts of the Marland Oil Company and the Group No. 1 Oil Corporation (Texon) operating jointly on a block of 8800 acres on the J. B. Harding ranch in southwestern part of Howard County resulted in the discovery of a medium sized producer last week from lime pay at 3173 to 3230 feet. The well was reported standing with 2000 feet of 28.2 degrees gravity oil in the hole, with no water in evidence, early this week while building tankage to make a test of the production by swabbing. This well is located at the center of the southeast quarter of section 19, block 33, T. & P. survey, Tsp. 1-S, being about seven miles southwest of Big Springs and 14 miles northwest of the Chalk-Clay shallow field. The top of the salt was logged at 1146 feet, and the big lime formation at 3125 feet. The production will be marketed by a short line to the T. & P. Railroad, thence in tank cars to the Gulf Coast.

A trio of wildcat tests in Eastern Pecos County failed to score oil production in the Yates shallow pay during the past week, while the fifth producer for the Yates shallow field is in process of completion. Arkansas Fuel Oil Company's Manly Holmes 1, section 16, block 178, T. C. Ry, survey, is shut down with sulphur water in hole from lime formation at 2380-85 feet, after logging the top of the salt at 640 feet with a surface elevation of 2507 feet. This test had a show of gas at 1390 feet, and traces of oil at 2132 feet. Texon Oil & Land Company of Texas' Yates 2, section 55, block 1, has shut down at 1225 feet after passing through a small show of oil at 1075 feet. This test is located about one-quarter mile northeast of the company's discovery well, which made a 20 barrel pumper from 31 feet of sand at a total depth of 1256 feet. Geo. A. Henshaw Jr. & Company's I. G. Yates 1, located on north line of section 544 and southeast of the Yates field, passed up a show of oil at 1185 feet, and early this week was drilling at 1400 feet with a show of gas and sulphur water. This wildcat logged the top of the salt at 525 feet, with a surface elevation of 2250 feet. In the Yates field, Transcontinental & Mid-Kansas Oil & Gas Company's Yates 1-B was drilling pay at 1135-85 feet with hole full of oil.

Pecos County has received about one dozen wildcat locations within the past ten days, and most of these are trying for shallow production. The Olean Petroleum Company has made three locations, while the Pecos Big Three Oil Company has announced a similar number of wildcat tests. Allsman & Bell et al have moved in materials to drill in the Pecos River bed directly east of the Yates field.

New completions in the Church & Fields area are considerably smaller than those brought in during the first half of April and shots are being used by most of the operators to stimulate the flow of oil. Eastland Oil Company & Collett-O'Keefe's University 2 increased its flow from 850 to about 2000 barrels daily when given a shot of 90 quarts at 2887-2950 feet. This well caught fire from engine exhaust shortly after being shot, but the fire was extinguished with little damage. Humble's University 8 flowed 25 barrels hourly after being shot with 60 quarts at 2914-54 feet, but the flow was brief.

Air lift methods in the Church and Fields area are proving successful on the Simms Oil Company and Atlantic Oil Producing Company's University 2-A, which quit flowing and when put on air last week averaged 1750 barrels daily using about 10,000 cubic feet of air per hour, with a back pressure of about 20 pounds on the well. This air unit consists of two 124 h. p. Clark engines and a pair of Laidlow compressors of the semi-portable type.

Eighteen locations on the south end of the Church and Fields area have been made within the past ten days as result of Ed. Landreth and associates of Breckenridge, Texas, starting development of their 237 acre strip lying between the University of Texas land and the Gulf-McElroy property. This strip was taken off the McElroy Ranch after the survey revealed the existance of the excess land, which automatically belongs to the State when established. Landreth will drill six tests in a row, giving Gulf a like number of offsets, and affecting Cromwell & Pickrell, Tidal Oil Company & Turman-Maxwell, and Simms & Atlantic on the north.

Joint Test at Medicine Bow Produces Oil

Casper, Wyo.—The Marland Oil Company and the Producers & Refiners Corporation have found a good quantity of oil at 4045 feet in their joint test of the Medicine Bow structure, section 25-21-79, but have not announced whether the well will make a commercial producer at the present depth. Oil from the Frontier sand gradually rose in the hole but the well did not flow. Several deeper sands can be reached and the test will be continued if the present test is not satisfactory. The oil is of a good grade and its gasoline content compares favorably with crudes from other light oil fields in the State.

J. H. Lawler is a new vice-president of the American Seamless Tube Corporation with offices in Houston, where he came to take charge April 1. Houston offices of American Seamless Tube are now located at 1211 Esperson Building.

Shreveport Area Again Busy As Floods Recede

SHREVEPORT, LA.—A resumption of activity in the drilling and production operations throughout the Shreveport territory is now apparent after practically the entire area had been shut down, on account of recent rains and consequent overflowed leases, for the greater part of the past two weeks. The flood waters have now subsided to the point where work can be carried on in the highland part of those sections not so seriously affected, although the lowland districts are still experiencing difficulty because of the slowness of the backwaters to recede. Perhaps the greatest damage to result from these shut-downs will be done in the Red River, Ouachita, and La Salle Parish fields, where operations were completely suspended for several days. In the Monroe Gas field, wells and meters were entirely inundated, making it impossible to operate them. The same situation prevailed in the Richland gas field, though to a lesser extent; and in the Urania field, where it was no uncommon occurrence for operating equipment to be completely submerged. In Arkansas, the Smackover and El Dorado districts were shut down for a number of days which will result in the loss of several thousand barrels production.

The Carterville section of Bossier Parish, and the Pleasant Hill section of Sabine Parish, scenes of Louisiana's most recent oil excitement, have both marked time during the past week. In the Carterville field, the Louisiana Oil Refining Corporation has successfully set a string of 4½-inch casing in its Blanton test in section 23-23-12, after the well had blown the liner out of the hole while being tested. The force of the impact upon the Christmas tree was such as to cause it to give away, allowing the well to get beyond control for several days. The well is now shut down while waiting for cement to set around the casing, and should be drilled in and tested within the week. The Magnolia Petroleum Company has set and cemented a string of 10-inch casing in Dodson 1, section 15-23-12, at 1216 feet, and it is also shut down while cement is setting. Robinson 1, of the Ramsey interests, section 16-23-12, is drilling below 2800 feet, and should reach the final casing seat some time this week. This is scheduled to be the first well to be tested in this vicinity since the Louisiana's Blanton well was completed, during the early part of April. Clark and Norton have abandoned their test in section 32-23-12, located approximately three miles southwest of the present scene of operations, after having failed to find the pay sand by drilling to a total depth of 3274 feet.

Pleasant Hill

Activity in the Pleasant Hill field is slowly, though surely, increasing since the completion of the Arkansas Fuel Oil Company's Logan wells, although it was thought some time ago that the bringing in of these wells would be the signal for the beginning of a small drilling boom. The fact that the Arkansas Fuel Oil Company, discoverers of the new production, owns practically all of the acreage in the direction in which the field seems to be going, as well as the condition of the crude market, is probably responsible for the hindrance of work in this new field. Should the field show signs of a trend toward the south, it is possible that development would be considerably speeded up. Several tests, now being drilled to the south of the discovery well, should shortly reveal the possibilities of production in this direction. The Magnolia Petroleum Company's Hall 1, located in section 33-10-12, one-half mile south of present production, is drilling below the 10-inch casing seat. The Woodley Petroleum Company's Robinson 1, located in the same section, approximately one-half mile south and west of the discovery well, is also drilling below the 10-inch casing seat. Both of these wells will be watched with interest, since it is the general opinion that the field will be developed to the west, and it is in this direction that the larger part of the leasing has been done. The Louisiana Oil Refining Corporation has started drilling in a test to be made in the southeast corner of an 80-acre tract situated in the southwest corner of the section which adjoins the Arkansas Fuel Oil Company's producing wells on the north. Beckman and Freeman's Logan 1, also located in the next adjoining section to the north, tested five million feet of gas at a depth of 3206 feet, with a slight spray of oil, and is now being drilled deeper.

Pine Island Deep Test

The Texas Company is making preparations to drill a deep test in section 14-21-15, Caddo Parish, near the center of the Pine Island producing section. This company is one of the largest operators in the Pine Island field at present, but heretofore its activities have been confined to depths above 3500 feet. The Ohio Oil Company has started drilling in its third deep test in Winn Parish. The first of these holes was lost at a depth of around 1400 feet following a blow-out which completely wrecked it. The second test, in section 4-13-1w, has been abandoned at 4457 feet, after the casing collapsed. The third test will be drilled one-quarter of a mile northwest of the hole just abandoned.

Another well has blown out in the Urbana-Lawson area of Union County, spraying oil and salt water, and the operators in that section are even more enthusiastic over the showing developed by this well than they were over the showing of the Ohio Oil Company's well, which blew out in much the same manner, during April. The Rovenger Oil Corporation's McCain 1, located in section 4-17-14, blew in last week from a depth of 2751 feet, with 140 feet of open hole, making gas in commercial quantities, and accompanied by oil and salt water. The amount of oil is said to be even greater than the amount which was sprayed from the Ohio well, mentioned above, which was junked and abandoned. The well has been killed in preparation for a Johnson sand test, expected to be made early this week.

Burgess Sand Well in Elk County, Kansas

Tulsa.—Wilson & Benge have a show for Burgess sand production in their McSpadden 1, in the southeast of the northwest of the southeast of 18-31-10, southern Elk County, Kansas. The well is four miles west of the Webb pool which has production from the Oswego lime.

The Wilson & Benge McSpadden had a show in the Oswego, but drilled on down and picked up the Burgess at 2208 feet. At the present total depth of 2230 feet, there are several hundred feet of oil in the hole. The well will be deepened before it is completed and put onto the pump.

In the Webb pool, the Okay Petroleum Company have a new well with their Leffingwell 10, in the southeast of the southwest of the southeast of the southwest of 14-31-10. It is making 175 barrels a day from the Oswego pay between 1636 and 1656 feet.

Method and Tools for Removing Paraffin From Wells

Bureau of mines report covers investigation of handling deposits in tubing and casing of flowing wells

By C. E. REISTLE, JR.,
United States Bureau of Mines

IN producing crude oils of paraffin base and of mixed base the producer is often confronted with the problem of preventing and removing paraffin that settles out of the oil and accumulates in the well. This paraffin consists of heavy waxes with some sand and asphalt, and varies in consistency from a soft semi-fluid wax to a hard gummy wax. This problem is by no means a new one as troubles have been encountered with it since the earliest days of the industry. However, with the discovery of the Panhandle, Texas, field and other large fields in which extensive troubles have been encountered, the problem has assumed added importance.

In new fields the most serious trouble with paraffin is in the flowing wells. The paraffin accumulates in the casing and tubing of such wells, and unless removed, will completely plug the well. This condition also develops in wells which are produced by gas lift, and often presents a serious problem when this method of producing oil is used. In older fields paraffin is also deposited on the face of the producing sand—that is, on the walls of the hole —or within the interstices of the sand near the hole, and this materially affects the amount of oil that can enter the well.

In this paper consideration is given to the problem of removing the paraffin from natural flowing and gas lift wells. The tools and methods described have proved to be a satisfactory and economical way of combating the paraffin problem in flowing wells. These tools do not prevent the deposition of paraffin, but when properly used, remove it before it accumulates to a point where the production or operation of the well is affected.

Paraffin Hook

The paraffin hook consists of a shaft on which is placed a disc, of the same diameter as the inside diameter of the pipe to be cleaned. This disc is usually made from several layers of old belting and is reinforced by a metal disc slightly smaller in diameter. The shaft is so shaped that the disc is held in a diagonal position while being lowered into the casing, but slips into a horizontal position when pulled from the well, in order to remove the paraffin. The shaft is made with a tool joint so that it may be attached to a sinker bar, a short stem, or jars to force it down through the paraffin; a polished rod may be used as a sinker bar for the tool used in tubing. A drawing of the tool for use in casing is shown at G, and for use in tubing, at H, in the accompanying chart.

This tool removes the paraffin from the well instead of merely cutting it from the pipe. This feature makes the tool valuable for use in wells where the paraffin has completely plugged the pipe, or where the deposit is hard and extensive. In removing large deposits the tool should be run several times, taking only a part of the deposit each time in order to prevent overloading the equipment. By changing the size of the discs the tool can be used in different sizes of pipe, which eliminates the necessity of having a separate tool for each size.

The main disadvantage of this tool is that it can not be used in wells while they are flowing, as the cross-sectional area of the pipe is completely closed by the tool when it is being pulled from the well. This necessitates running the tool between flows, and in gas-lift wells it is usually necessary to shut down the well while it is being cleaned.

Paraffin Knife

The paraffin knife has a cylindrical cutter or blade attached to a stem which is provided with a tool joint so that the tool may be used with a sinker bar or short stem to force it through the paraffin. The cylindrical cutter is split along one side so that it may contract or expand with irregularities in the diameter of the pipe. The sharp bottom edge cuts the paraffin loose from the pipe as the tool is run into the well. In using the tool it is, therefore, unnecessary to wait until the well stops flowing or to shut down gas-lift wells.

One unsatisfactory feature of the knife is that it does not remove the paraffin from the well, but only cuts it free from the pipe so that it may be flushed from the well by the oil. This tool is, therefore, of little use in removing large deposits, or when the pipe is completely plugged. It is advisable in that case to use the paraffin hook for removing the large deposits of paraffin, and then use the paraffin knife often enough so that the paraffin is soft and easily flushed from the well.

Flow Devil

The flow devil is a tool similar to the paraffin knife, and was designed by N. O. Miller of the Marland Oil Company. Drawings of the tool are shown at C and D on the chart. Instead of one set of cutters this tool has two cutters, the upper cutter is unnecessary for removing the paraffin but is important as a guide to keep the tool from canting and hanging on the pipe. The cutters are not split to allow for irregularities in the pipe, but are made with a diameter slightly smaller than the inside of the pipe to be cleaned. The split cutter used in the paraffin knife is probably better, as it allows the tool to conform with any irregularities in the pipe.

The flow devil is used in the same manner as the paraffin knife and has the same advantages and disadvantages.

Special Heads

In order to facilitate the use of these tools and prevent loss of time and oil, each well should be so equipped that the crew can run the tool in the shortest possible time and without unnecessary delay for rigging up.

In order to prevent a loss in production of oil in flowing wells, each well should be equipped with a special head so that the tools may be run into the well while it is flowing. The special head for wells flowing through casing comprises a length of pipe which is placed above the control head; this pipe is of the same size as the casing to be cleaned, and is long enough so that the tools may be run and the oil saver attached. The control head can then be opened and the tools lowered into the well without interfering with the flow of the well. After the paraffin is removed the tools can be drawn into the pipe above the control head, the control head closed, the oil saver removed and the tools withdrawn. A special head for wells flowing through casing is shown at A, and one for wells flowing through tubing is shown at B in chart. The special head for wells flowing through tubing or gas-lift wells is similar to that used for wells flowing through casing. The gate valve at the

bottom of the special head is larger than the tubing so that the tools may readily pass through the valve, and it takes the place of a control head.

This special head is primarily for use in wells where the paraffin knife or flow devil is used at regular intervals, and eliminates the loss of oil or the shutting down of gas-lift wells. The time and oil saved by this additional equipment will more than justify its use on flowing wells.

Portable Winches

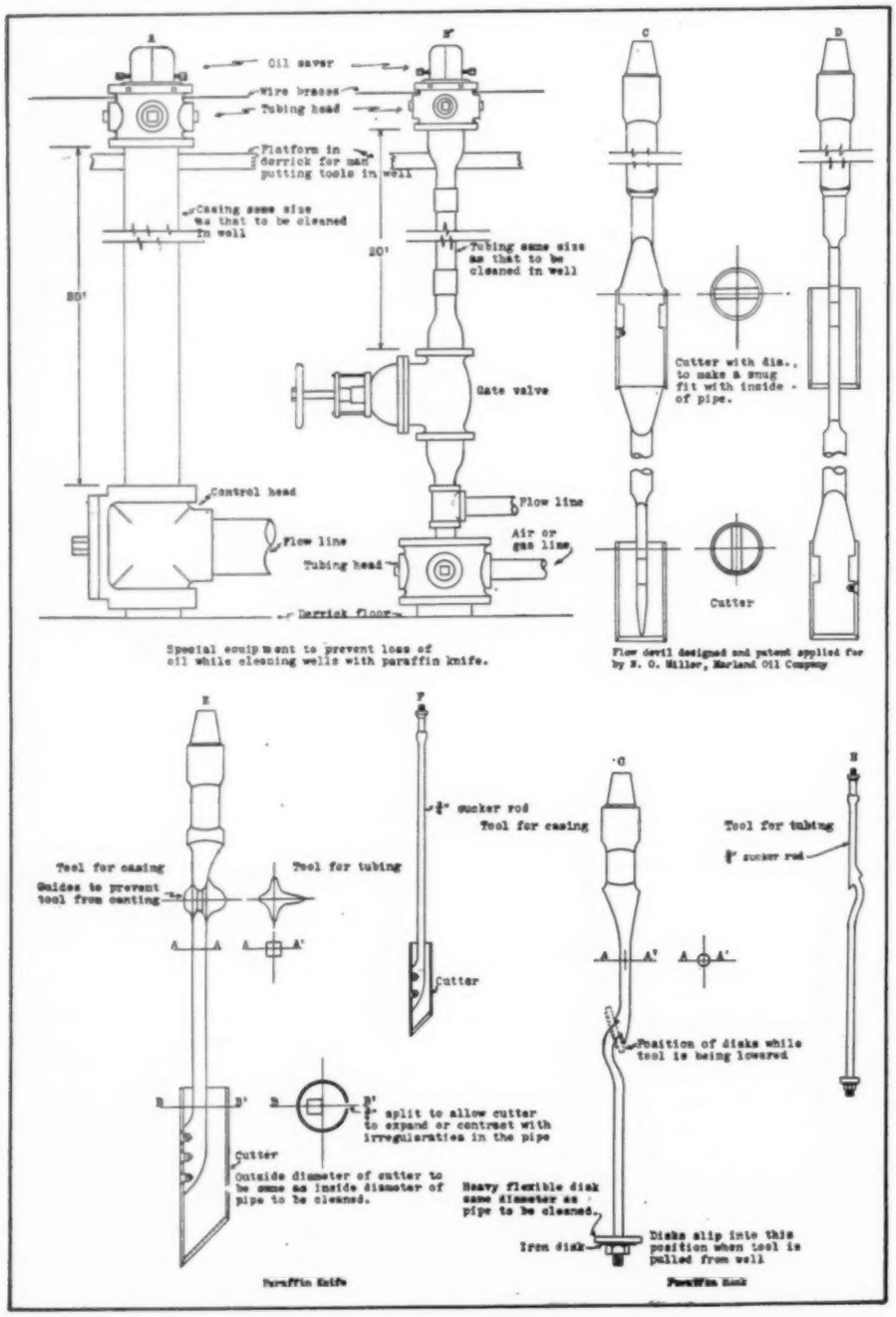
The use of portable winches for operating these tools eliminates the necessity of having each well equipped with power, and increases the number of wells that can be cleaned by one crew in a day. In the Salt Creek field of Wyoming where electric power is available at each wells, portable electric winches are used. These winches are made in two sizes for different types of work. The large size is mounted on a five-ton motor truck with a four-wheel drive, and consists of a 50-horsepower variable-speed motor and controller with a gear-driven winch having a capacity of 3000 feet of three-quarter-inch wire line. The smaller size is mounted on a two and one-half-ton truck and has a 25-horsepower variable-speed motor and controller with a gear driven winch having a capacity of 2000 feet of three-quarter-inch wire line. These portable winches can be used for pulling tubing in addition to running the paraffin tools.

The paraffin can be removed from the average well in one hour by using the portable winch and the tools previously described. A crew of two men is enough for this work, one man operating the winch and acting as foreman, and the other at the well watching the tools. The approximate cost of cleaning wells in this manner is as follows: Labor, winch operator, $5, helper, $4; depreciation, interest on investment, maintenance, etc., $25; power, $3; miscellaneous, $3; this makes a total of $40 per day or a cost of $8 per well, assuming five wells can be cleaned per day.

In fields where electric power is not available or practical, tractor winches or those mounted on trucks and geared to the truck engine may be used. The cost of operating these winches may be somewhat higher than the electric ones, however, the cost per well should not be very much higher.

Summary

In using these tools for removing paraffin the wells should first be cleaned by use of the paraffin hook to insure the removal from the well of all accumulated paraffin. After the wells are conditioned with this tool, the paraffin knife or "flow devil" should be used at regular intervals. The intervals between cleaning should be short enough so that the paraffin deposited will be soft and will not have formed in large enough quantities to affect the production or operation of the well. If the wells are not cleaned often enough, the paraffin may accumulate in such quantities as to affect the production and in addition it may plug the well after being loosened by the paraffin knife. If the well is cleaned too often, the cost of preventing paraffin troubles will be unnecessarily high. This must of course be determined for each well by experinent and observation.


Oil saver
Wire braces
Tubing head
Platform in derrick for making tools in well
Casing same size as that to be cleaned in well
Tubing same size as that to be cleaned in well
Gate valve
Control head
Flow line
Air or gas line
Tubing head
Derrick floor
Special equipment to prevent loss of oil while cleaning wells with paraffin knife.
Cutter with dia., to make a snug fit with inside of pipe.
Cutter
Flow devil designed and patent applied for by H. O. Miller, Marland Oil Company
Tool for casing
Guides to prevent tool from canting
Tool for tubing
⅝" sucker rod
Tool for casing
Cutter
Tool for tubing
⅝" sucker rod
Position of disks while tool is being lowered
Cutter
Outside diameter of cutter to be same as inside diameter of pipe to be cleaned.
Heavy flexible disk same diameter as pipe to be cleaned.
Iron disk
Disks slip into this position when tool is pulled from well
Paraffin Knife

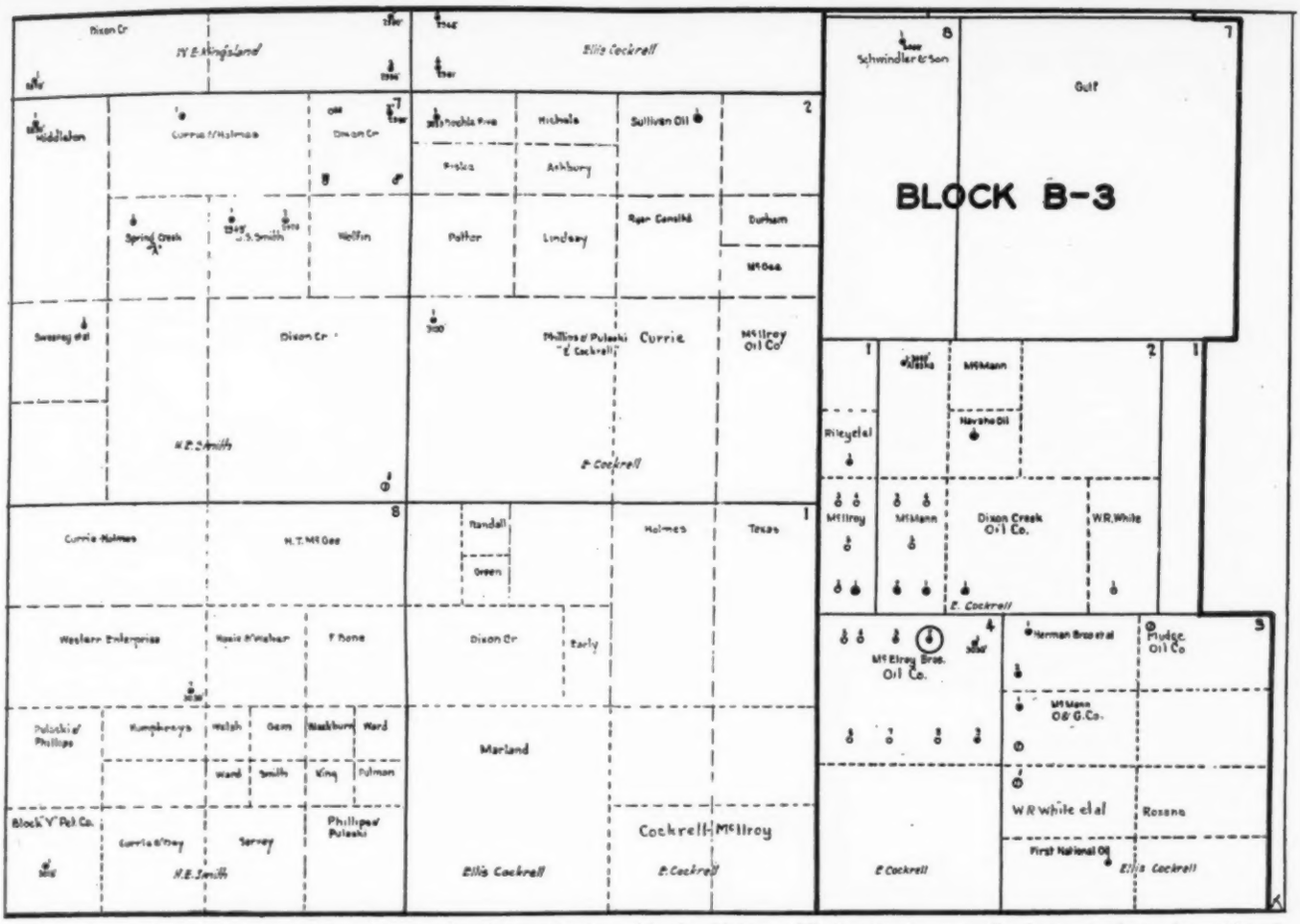
Drilling Two Tests on Valier Structure

Great Falls, Mont.—Salt Lake interests are drilling two wells on the Valier structure, north of Conrad, and are basing their geology on the findings of an instrument supposedly sensitive enough to locate oil from the surface. Both wells are making good progress, the most promising one being located on section 35-30-3. The tests will be carried to the deeper formations if necessary. Production was not expected in the shallower sands, it was stated.

Texas City Shipments

Houston—.Oil handled through the port of Texas City during March amounted to 3,190,230.94 barrels, including 165,478 barrels of refined products exported by the Marland Refining Company.

Humble Oil & Refining Company led with 1,743,326.57 barrels of crude. Other crude handled included 405,667.64 barrels of Vacuum Oil Company, 363,942 barrels of Marland and 346,338.73 barrels of Swiftsure Petroleum Company, making a total of 2,859,274.94 barrels of crude.



Development on the Cockrell Ranch in Southeastern Hutchinson County, with the McIlroy Oil Company's unusually heavy producer in section 3, block B-3, indicated by a circle. This big well is a west offset to the first completion in the area.

Hutchinson County Well Makes Record Panhandle Flow

By H. H. KING
Staff Representative

AMARILLO, Texas. — Southeastern Hutchinson County contributed the banner completion of all times in the Texas Panhandle late Sunday when the McIlroy Oil Company's E. Cockrell 2 blew in with heavy gas pressure with an estimated production of more than 8000 barrels of 40.4 degree gravity pipe line oil at a temperature of 70 degrees from regular lime pay at 2922-25 feet. This well gauged 6750 barrels during a 15-hour period Monday, or at the rate of 450 barrels per hour, and had to be pinched to about 300 barrels hourly. This big producer is located on the north line of a 80-acre lease in section 3, block B-3, D& SE survey, and is a west offset to the pioneer well in the latest flush area to be uncovered in the county. The McIlroy Oil Company's Cockrell 1 attracted the first attention to the area with an initial flow of 1080 barrels oil after shot of 210 quarts at 2976-3050 feet, with a surface elevation of 3075 feet. The former producer was completed February 19, and averaged 380 barrels daily last week. The big well has a surface elevation of 3084 feet.

A broken casing seat is believed to be largely responsible for the record flow of oil coming from the McElroy Oil Company's Cockrell 2, as a flow of about 20 million cubic feet of gas appeared after the well had been flowing oil. Additional gas traps are being erected to handle the production, while Humble and Marland are enlarging their pipe line facilities to take all the oil produced. Marland Employes Royalty Company owns one-half of the royalty under the Cockrell Ranch, including the royalty under the lease offering the big production. The Cockrell-McIlroy Oil Company's Cockrell 1, which was reported last week as having extended the flush area in the pool to the west with an initial flow of 200 barrels hourly at 2850-51 feet, with a surface elevation of 3062 feet, maintained a daily average of 3030 barrels last week. The production of this well declined, but early this week was reported to have been restored to the 200 barrels per hour mark.

Gray County added a new wildcat oil producer early this week when Henry Riley & Heck's Mrs. J. A. Hopkins 1 flowed 10 barrels high gravity oil per hour from granite wash pay at 3005-10

(Continued on page 60)

PANHANDLE OPERATIONS

Amarillo, Texas—Condensed summary of field operations in the Texas Panhandle district at the close of the week ending April 30th is listed below by counties, with comparative totals for the previous week:

	Completions	Active Test	Shut Down	Rigs and Derricks	Locations	Totals
Briscoe Co.	..	1	..	..	..	1
Carson Co.	5	47	6	6	2	66
Castro Co.	..	1	1	1	..	3
Childress Co.	..	1	1	..	1	3
Cochran Co.	..	..	1	..	..	1
Collingsworth Co	..	1	..	..	1	2
Dallam Co.	..	2	1	..	..	3
Deaf Smith Co.	..	..	2	..	..	2
Donley Co.	..	..	1	..	..	1
Gray Co.	1	31	9	6	1	48
Hartley Co.	..	2	4	..	..	6
Hemphill Co.	..	..	2	..	..	2
Hutchinson Co.	11	120	35	29	8	203
Lipscomb Co.	..	1	1	..	..	2
Lubbock Co.	..	..	1	..	..	1
Moore Co.	..	5	3	2	..	10
Motley Co.	..	..	1	1	..	2
Ochiltree Co.	..	..	5	..	..	5
Oldham Co.	..	1	..	..	..	1
Parmer Co.	..	1	..	..	..	1
Roberts Co.	..	1	3	..	..	4
Sherman Co.	..	..	1	..	3	4
Wheeler Co.	1	15	5	4	3	28
Totals	18	230	83	49	19	399
Totals prev. week	30	244	82	48	12	416

Seminole Lift Equipment Given Finishing Touches

Better weather and the rush over finds operators making refinements to hurriedly installed compressor plants

By GEORGE REID
Staff Representative

WHEN the winter rush was on at Seminole, and when the flush production was at its peak the installations of air-gas lift systems were rapidly increasing in number to the extent that it is estimated by company engineers in the field that somewhere between 50 and 75 per cent of the oil produced in the Seminole pool is brought to the surface by means of artificial stimulation through the employment of compressors. During the mid-winter rush, when most of the air lift installations were made, the conditions prevailing were not conducive to experimentation and deliberation, and equipment was hurriedly installed. With the opening of spring and with the field growing a little more quiet and possibly less congested, the gas-air lift engineering departments of the operating companies are engaged in going over their early work and installing improvements and refinements which will promote greater effciency of operation.

The chief reason that accurate gas-oil ratios for this district were almost impossible to secure during the early period of gas development was lack of meters or inability to get them installed. This work has not yet been completed. Some companies have succeeded in placing intake meters for the purpose of measuring the gas or air injected into the well, along with the installation of meters on the air relief or gas lines leading from the well, but the majority of the wells are not yet so equipped. This equipment, however, is rapidly being applied to each well operating under the air-gas flow method. Measurements of gas entering the well as well as gas leaving it, checked against the production of the oil is necessary to secure data upon the gas-oil ration problem. A great number of wells are equipped with intake meters, but not yet equipped with meters placed on the lines conducting air away from the separators. Figure 1 illustrates one method of installing Westcott orifice meters for the measurement of gas injected under pressure into an oil well where gas lift is employed. The well in the background is producing under the gas lift, and discharging its production into the Smith separator shown to the left of the photo. This trap is separating oil and gas production from four different wells.

Separators

The practice of using one large separator for three or four wells is tending to lower the number of small separators in the field, in that it is no longer the general practice to equip each individual well with a separator or trap, for it has been found that one larger installation performs just as efficiently with a number of wells discharging into it. This number is, of course, governed by the size or capacity of the separator and by the production of oil from the wells and the cubic feet of gas to be handled. Figure 2 illustrates the method employed with a 10 by 20 feet National separator where four wells are discharging their production into the one trap. This separator is located some distance from the four producing wells and close to the compression-air lift plant, as is suggested by the appearance of the cooling tower in the background. Note that this cooling tower is mounted above an open top steel tank. This method lends speed to the installation of the louvre tower and under field conditions it is believed to be more economical than digging pits for concrete water reservoirs with the cooling tower above them. The gas from the producing wells on this lease, which is separated in the trap shown in Figure 2, is then conducted to the compression plant and stripped of its gasoline, the residue being recycled through the wells.

From the trap the oil production is conducted to the flow or field tanks. General practice is to install batteries of these tanks centrally located on the lease where it is gathered from the wells for further transferring to larger steel storage or piped out of the field. Figure 3 shows a battery of 16 Perfection vapor pressure tanks in service on the I. T. I. O. Co.'s Harjo lease. This battery is one of two of the same size required to handle the production from the properties.

Operations

The gas or air lift installation of surface equipment involves the compressor, the lead line to the well, with meter for measuring volume of gas injected. Air or gas is discharged in the tubing string at pressures ranging from as low as 150 pounds to as high as 500 pounds—for the field in general. Volume of gas or air ranges from 300,000 to as high as 1,000,000 cubic feet, though the latter figure is higher than the rule. As much submergence as is possible is desired by nearly all of the gas-air lift engineers. This means that the higher the fluid level, the better they like it. One engineer states that he gets better results with 1500 feet submergence, but that wells will flow satisfactorily with less. The tubing string is carried a few feet deeper than the casing. Oil is then forced up to the surface through the casing. It may be stated that general practice for the field consists of casing of such size as 6⅝ and 2½-inch tubing. This is not an arbitrary statement, however.

When the mixture of air and oil or gas and oil leaves the casing at the top of the well it is conducted to the separator. If the well is operating on the gas lift, the gas is metered again as it travels through the lead pipe conducting it to the compression plant. If the installation is of the air lift type and not making gas in any quantity, the air is conducted away from the trap a hundred feet or so and up into the air through a riser line, where it is dissipated into the atmosphere. This line is equipped with a meter for measurement of air from the trap, also with a check valve and hand or wheel valve, as safety measures. The complete surface installation as used on the Carter Oil Company's Lukes 2, which was flowing 5000 barrels on the air lift at the time of the picture, is shown in Figure 4, derrick, trap, meters, to flow tank. In Figure 5 is shown the connections at the well head with valve equipment and pressure gauge installed. Figure 6 is another view of connections at the well head of a well flowing under air lift pressure methods, being Tidal-Osage Oil Company's Mahardly 4.

Company methods differ in this work. Some companies install a number of small plants for air-gas lift, scattered over the leases and working independently of one another. Others install large central plants housing a number of compressors, and conduct the air or gas away from the compression plants through lead lines extending to all their wells. The same difference is found in the installation of meters and volume control instruments. The Pure Oil Company has one of the largest compression plants in the field, and meters and controls the volume of air and gas leaving the plant for the wells in one central meter-control house.

Varied Methods

The many compression plants in the field are equipped with all types of machines. These machines are operated by a number of methods. A great many are belt driven by electric motors, the service being supplied by the Oklahoma Gas & Electric Company, which has the field partially supplied with power since the period of early development and is rapidly extending lines to all portions of the producing district. A number of compressor

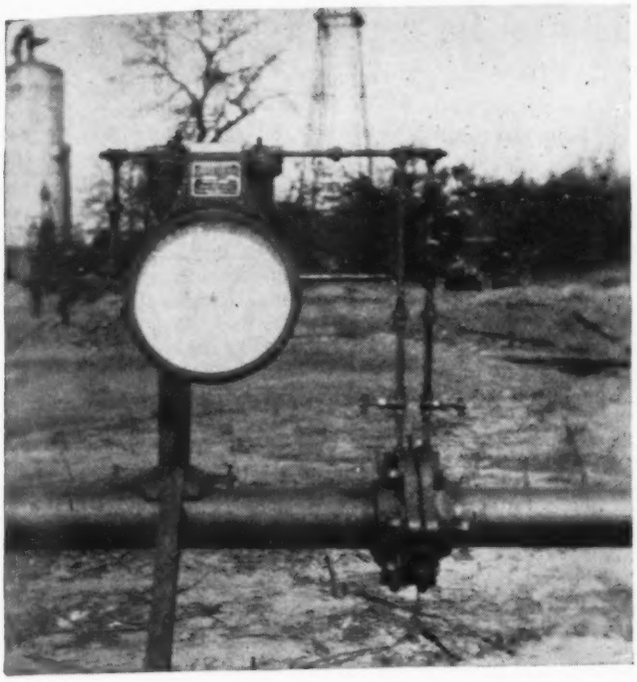


Figure 1—Orifice meter for measuring gas to well on gas lift.

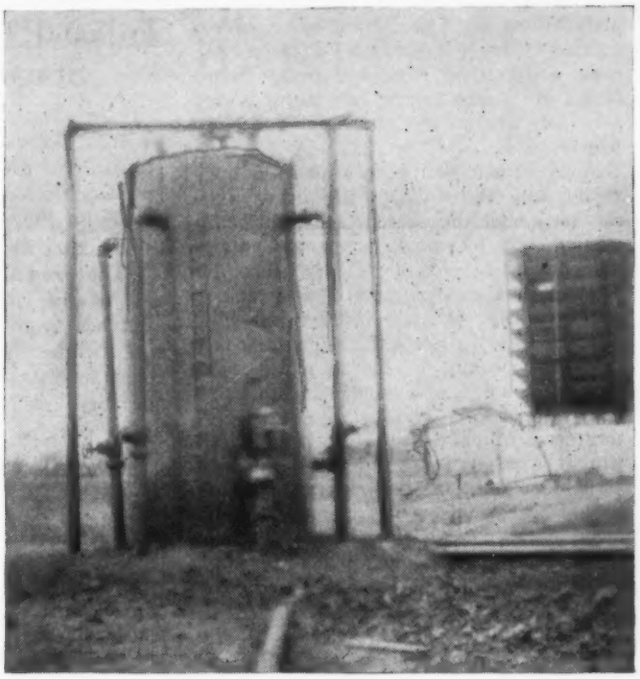


Figure 2—A 10 x 20 separator used to handle production from four wells.

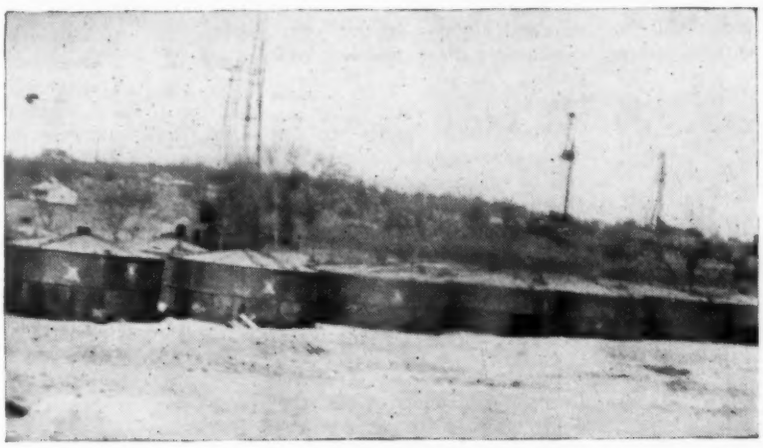


Figure 3—Battery of 16 1000-barrel flow tanks on I. T. I. O. Harjo lease at Seminole.

Figure 4—(Below) Surface equipment at Carter Oil Company's Lukes 2—meters, separator, flow tanks, etc.

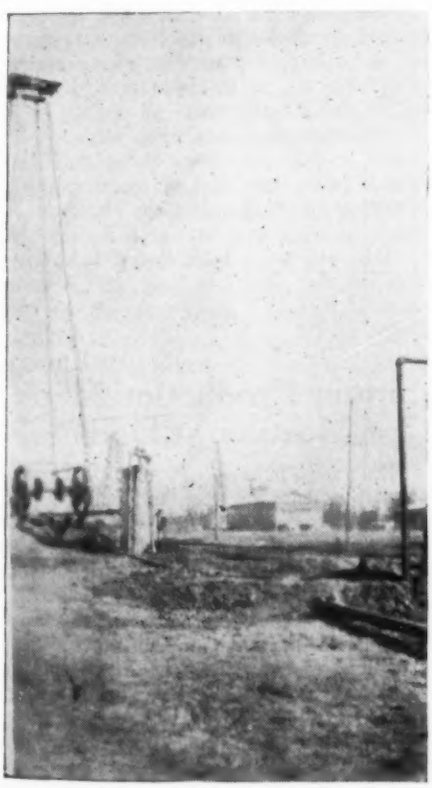


Figure 5—(Below) Well connections on Carter Oil Company's Luke 2, flowing 5000 barrels on air lift.

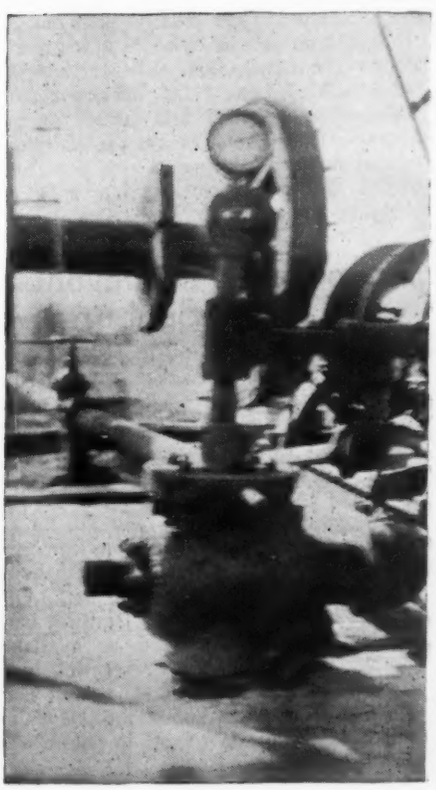
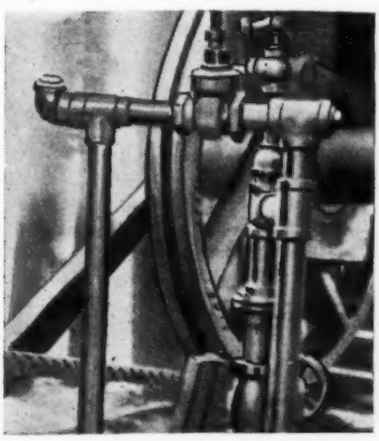


Figure 6—(Below) Well connections on Tidal-Osage Oil Company's Mahardy 4, producing on air lift.



installations are gas driven, either direct connected or belt driven. Gasoline engines are used in some instances. Some plants are steam driven, but steam is not as widely used as the gas engine and electric motor.

Many of the plants were installed hurriedly and without flooring other than the earth, but the present schedule being carried out by most companies entails the pouring of concrete floors, since the weather has cleared up. The machines are variously set upon large wood sills, concrete bases, or heavy steel sections.

With the coming of spring weather the painter is much in evidence on all company properties. The buildings are getting coats of paint in the individual company colors. All metal lines, manifolds, scrubbers, and in fact everything that should be protected by paint coating is being covered.

A great number of the air-gas lift plants are being installed as fully equipped compression gasoline plants, and connected in such a manner that they may be readily switched from the compression to dry gas to wet gas or to air. This means that one week or month, or maybe only for a few days, a number of plants will be, for all practical purposes, gasoline manufacturing installations. Next week they will not, but will only be listed as air compression plants. This condition will no doubt add somewhat to the burdens of the petroleum statistician, for even at present with the great number of straight gasoline plants it is an extremely difficult matter to survey them, but with the addition of a few score (for the future will provide that number) of compression plants which are half and half gasoline plants, the difficulties in determining which is which, is apparent. So the statistician is having his work cut out for him.

Thus the milder spring weather finds the air-gas lift departments operating in the Seminole field busily engaged in straightening out the wrinkles in his work. Plants are being floored, everything is being painted, meters and volume control instruments installed and tuned up for accuracy, and every effort is being extended toward placing the systems installed and under construction upon an accurate and scientific basis.

Second Test in Devonian At Kevin-Sunburst

Great Falls, Mont.—The second deep test to reach the Devonian sand in the Kevin-Sunburst field is acting very much the same as the first one drilled more than a year ago. The present test, which is being drilled on section 17-34-1 by the Pondera Valley Oil Company, is throwing water and a little oil over the top of the derrick. Close examination, however, showed the crude to be somewhat heavier than that found in the Frazer well. Operators had hoped to find a paraffin base oil in the Devonian sand as available samples taken from the Frazer well indicated as much. The Pondera well may be in a formation above the Devonian and a better grade of oil is possible in the deeper sands.

Tulsa Exposition to Be State Fair Event

Tulsa.—Dates for the International Petroleum Exposition have been set and preparations are under way for providing facilities for the event in connection with the Tulsa State Fair.

The dates are September 24 to October 1. The grounds of the Fair Association east of the city will be used. A large area has been set aside as a permanent site for the exposition, which is to become an annual affair, after a lapse of one year.

The work of moving the buildings from the site of the former exposition is under way. The old site at Madison avenue and the Frisco tracks will likely return to the Prairie Oil & Gas Company. Officials of the exposition, the Chamber of Commerce and those of the Prairie organization have been in conference on the matter of removing buildings put on the old site by the exposition organization.

Action of setting the dates is taken to mean that the affair will be pushed with renewed vigor. Another organization for conducting the exposition must be put together. As yet no manager has been selected.

When these details are completed, the work of signing exhibitors for the space will be taken up. The new site is of sufficient size to allow all space necessary for exhibits that must be placed outdoors.

Texon Gets Big Profit From Big Lake

Big Lake, Texas.—Texon Oil & Land Company, discoverer of the Big Lake field, has paid 100 per cent cash dividends during the past 12 months on its outstanding capital stock. Stockholders of record March 25, 1927 received 20 per cent April 26, according to Frank T. Pickrell, vice-president and general manager, making a total disbursement of $4,631,588.68 through five separate 20 per cent cash dividends issued between April 24, 1926 and April 26, 1927. Texon was organized with a Delaware charter in 1919, with a capital stock of 10,000,000 shares at $1.00 par, and has unissued capital stock of $5,281,385.00; treasury owned stock of $22,315.40; and issued and outstanding stock of $4,496,299.60.

Texon is a holding company, owning stock in a number of companies associated with the development and marketing of the production in the Big Lake field. Texon's producing properties in the Big Lake field are operated under the name of the Group No. 1 Oil Corporation, which has a capital stock of 2,048 shares of no par value, with all stock issued. Group No. 2 Oil Corporation produced approximately 3,461,553 barrels of crude, or a daily average of 9,483 barrels, from the Big Lake field lease during the 12 months ending April 1, 1927, and the sales return from this production amounted to $6,914,428. The latter corporation received $1,523,437.50 in cash dividends from stock owned in the Big Lake Oil Company from April 1, 1926 to April 1, 1927.

Group No. 1 Oil Corporation has paid $3,000 per share in cash dividends in six separate payments between May 10, 1926 and April 25, 1927, according to Pickrell, and the total dividends for the fiscal year amount to $6,144,000. Texon Oil & Land Company of Delaware has 1,286½ shares of the stock in the former corporation, and also holds stock in the Group No. 2 Oil Corporation, Reagan County Purchasing Company, Inc., Big Lake Oil Company, and the Texon Oil & Land Company of Texas. The latter concern is conducting an extensive wildcat drilling campaign in West Texas.

Find Future Oil Storing On Sea Bottom

Washington, D. C.—Future oil development lies beneath the bottom of the seven seas, members of the American Geophysical Union were told April 28 by Parker D. Trask, research associate of the American Petroleum Institute, in outlining some of the problems which confront the oil industry in its search for new fields.

The duration of the present fields, Mr. Trask told his audience, is problematical and science therefore has undertaken an intensive study of the actual condition of oil formation at the bottom of the sea. The project was announced for the first time.

The work is being conducted under a committee in the membership of which are Dr. Austin H. Clark of the Smithsonian Institute, Dr. W. Van Der Gracht, vice-president of the Marland Oil Company, and Dr. T. Wayland Vaughan of the Scripps Institution of Oceanography.

The purpose of the project is to study the conditions under which the sediments that in the future will be possible sources of petroleum are forming today. It is expected to shed new light on the question of the origin of petroleum and materially aid the geologist in his increasingly difficult task of finding new oil pools.

Preliminary studies have already been made in the sea waters about the Channel Islands, west of Los Angeles, and in Pamlico Sound, inside Cape Hatteras. All types of sediment thus far examined, Mr. Trask said, have been found to produce oil, but the yield has been very low, the highest being 2.7 gallons per ton of sediment.

Simms Production Men in Meeting at Dallas

Dallas, Texas.—Production superintendents, lease foremen and field accounting department heads of the Simms Oil Company were assembled in Dallas April 28 and 29, for an annual meeting. Simms has producing properties in Oklahoma, Arkansas, Louisiana and Texas. W. L. Todd, vice-president and manager of production, and L. W. Richards, secretary and manager of the accounting department, presided at the business sessions, and a dinner was given the employes at the close of the meeting.

Bureau Studying Seminole at Close Range

Field office is investigating all conditions of production, above and below ground

THE United States Bureau of Mines has established a field office in the heart of the Seminole producing area for the purpose of studying the development of the field from an engineering standpoint with three members of the personnel of the bureau on the ground while the work is in progress. The field office of the bureau is located in the northwest corner of 26-9-6e. This is known as the Wolfe lease and owned by the Gypsy Oil Company. The main road running east from Seminole passes close to the bureau's station.

C. R. (Cliff) Swarts, who is in charge of the field office, and his associates, C. R. (Charlie) Bopp and W. S. (Buck) Morris extend an invitation to all oil operators to visit them and get acquainted. Information obtained by those visiting the office, in regard to what the bureau men are doing and are trying to do, is certain to be of interest This institution is functioning for the purpose of trying to help and assist the oil producer in his work, and without the view of attempting any regulatory measures. The bureau takes a long view of the oil production situation and does not allow itself to be stampeded by stories of over-production, or of oil shortage.

"What we are trying to do," said Mr. Swarts, "is first, to make a real study of the Seminole district. The engineering problems in the development of a highly productive pool like Seminole are many. First and most important is the interpretation of underground structures which determines casing programs, depth, thickness and character of productive sands, solution of water troubles and production problems. The study of underground structure is the most important to solve.

"In the determination of underground structure, the Bureau of Mines has established a system of cross sections in such a way that every well has three sections running through it, two at right angles to each other and the third diagonally to the first two. The uniform spacing of wells permits the successful application of this system. As soon as a well is completed the standard log is plotted on the three sections and the productive sands connected with adjoining wells on the section. From these sections a careful study is made of the underground conditions.

Sand Studied

"Sand samples are gathered when available and studied under a binocular microscope. Physical characteristics of the samples and kind of minerals present are noted, this data to be used in determining the age of the productive sands, and later may prove of value if repressure work is carried on.

"Wherever water is encountered in the drilling of a well, this is noted on the cross sections. If possible a true sample of the water is obtained and sent for analysis to the bureau's laboratory at Bartlesville. Comparison of analysis made may lead to the segregation of certain waters as characteristic of certain horizons, and help to solve future water troubles.

"As the water problems are solved casing programs can be better determined. The flooding of productive sands above and below the waters can be prevented. The successful solution of water troubles eventually means a greater recovery of oil with less cost.

"Samples of oil are taken from different wells and different productive sands. These samples are also analyzed in the laboratory at the Bartlesville station, and comparisons made between wells and various parts of the field.

"All the above problems of underground conditions are closely related and each has a direct bearing upon the other. It is essential, therefore, before conclusions are reached concerning the whole field, that each problem is carefully studied, first, by itself, and second, in its relation to the other problems. The future production of a field depends on a correct interpretation of underground conditions.

Production Statistics

"Production of individual wells are recorded whenever such records are available. In other cases lease production is carried. From these records, estimated decline curves are plotted. Production records, and especially individual records, are of value in production problems, in well repair work, in the use of the gas lift, and finally, in problems involving the repressuring of sands to increase the ultimate recovery.

Drilling Statistics

"Records of drilling wells are kept showing elapsed drilling time, drilling time for standard and rotary tools in feet per day; kinds of bits used and the causes for various delays and shutdowns, each classified under separate headings. From these data drilling time can be estimated, which may be of value in future work.

"Drilling equipment, including all parts of rotary and standard rigs, are noted and their use discussed from an engineering standpoint.

Pressure Control

"The method of producing oil by the use of gas or air has proved, during the past few years, that its only competitor is the naturally flowing well. However there seems to be no concrete law that is applicable to all cases. Some wells will flow under certain conditions which applied to other wells has been unsuccessful. The Bureau of Mines is gathering data relative to this method of production and from compilation and study of the same, supplemented by experimental work at the Bartlesville laboratories, expect to derive some fundamental principles that will be of use. Nearly every company operating in the Seminole pool is now applying gas or air to flow their wells, consequently data in this respect should be very comprehensive. The Bureau is gathering all available data which include all phases of this problem, from the installation of compressor plants to methods and conditions of application of gas or air to the wells, and results obtained.

Conclusion

The problem of making an engineering study of a field as productive as Seminole can not be summed up in a few words or sentences. Many other problems enter into a study of this kind that are as important as those mentioned above. Cementing of casing, shooting of wells, safety appliances to prevent accidents and many others are all included under engineering problems. The gathering of data relative to these various problems in the entire field involves time and hard work. However the cooperation given by the various companies in furnishing data and giving verbal information has added to the work a pleasure that would otherwise be lacking.

"It is hoped the operators and field men will use the Bureau as a source of information that may be of use to them in the solution of some of the engineering problems. It is also hoped that by the compilation of data and by the exchange of ideas and opinions, that the efficiency of drilling for, and the efficiency of producing petroleum and gas will aid in the great plan of conservation."

South Texas Industries Use Much Natural Gas

Big savings follows substitution of gas for fuel oil under refinery stills and power plant boilers

By WALLACE DAVIS
Staff Representative

AS a result of pipe line construction for delivery of natural gas to industrial centers in the Gulf Coast area within the past few years, most of which dates back to less than 18 months ago, there is now approximately 167,000,000 cubic feet of gas consumed daily in an area less than 125 miles long. This consumption includes both industrial and domestic utilization, embodying the work of oil and sugar refineries, sulphur and salt mines, power plants and various manufacturing concerns.

The inauguration of natural gas as fuel for power in this territory has meant its substitution for refinery residuum. Since the piping of the first natural gas to the Beaumont-Port Arthur district by Magnolia Gas Company, a subsidiary of Magnolia Petroleum Company, little more than two years ago, consumption of gas has rapidly increased until today it is replacing approximately 28,350 barrels of fuel oil daily.

The natural gas business has, since its inception in this region, had phenomenal growth until now there are three major concerns engaged profitably in the production, transportation and distribution of it as fuel generally. Of the 167,000,000 feet, the Houston Pipe Line Company, subsidiary of Houston Oil Company of Texas, leads with a movement of around 82,000,000 feet. Houston Gulf Gas Company, has a run of 47,000,000 feet, while the Magnolia Gas Company is delivering to Beaumont-Port Arthur district refineries 38,000,000 feet daily. Gas obtained by the latter company is produced in Northwestern Louisiana, while that of the other two companies is taken from reserves in Southwest Texas fields.

With the 28,350 barrels of fuel oil consumed in industrial and domestic plants in this territory prior to the coming of natural gas, running at an estimated rate of $1.40 per barrel, the consumers were paying approximately $39,690 daily for fuel. With the average gas rate of 20 cents per thousand cubic feet, natural gas consumers are now spending in this district roughly $33,400 per day, which, on the face of it, shows an annual saving of well over two and one-half million dollars.

Fuel Values

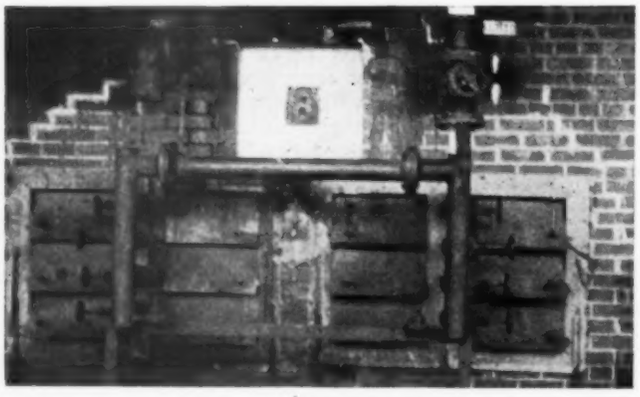
Natural gas from the present sources has a calorific value of 1000 B.t.u. per cubic foot. Fuel oil residuum from coastal crudes average 19,000 B.t.u. per pound on an average. The method in use in the Houston district by which the comparative value of the two fuels is determined, consists first of determining the B.t.u. per barrel of fuel oil. The weight of a barrel of Coastal fuel oil is arbitrarily taken as 310 pounds—this figure used as an average after years of experience with the oil in question. Having a heat value of 19,000 B.t.u. per pound, then the barrel of oil of 310 pounds has a heat value of 5,890,000 B.t.u. The natural gas now transported into Houston has a heat value of 1,000 B.t. u. per cubic foot. Thus 5,890,000 B.t.u. divided by 1000 B.t.u. gives the results of 5,890—which is the number of cubic feet of natural gas calculated to be the equivalent of one barrel of fuel oil.

Certain refiners in the districts mentioned are conducting their heating operation with a lower rate of gas consumption per barrel of fuel oil. One plant reports continuous results under their peculiar conditions where only 5300 cubic feet of natural gas is required to equal the heat value of one barrel of oil. Another installation finds that 5412 cubic feet are required to replace a barrel of oil. A third plant finds that the estimated or comparative figures given above of 5890 cubic feet per barrel of oil are too low by about 100 cubic feet. The heat value of the natural gas is naturally governed by the chemical composition of the gas itself, the volume of air, if any, piped along with it, percentage of nitrogen (and inert gas) and the proportional percentages of Methane, Ethane, etc.—inclusive of other hydrocarbon series sometimes present in natural gas. In addition to the inherent characteristcs of the gas itself, the factors of furnace design, burner construction and efficiency, pipe line conditions, regulation, etc., are among the factors contributing to the efficiency or otherwise of the gas for fuel installation.

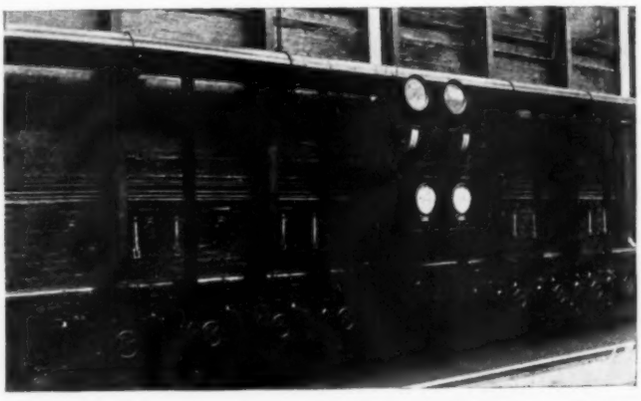
In the preparation of comparative estimates indicative of the economy and conservativeness of natural gas for fuel as against fuel oil residuum, it is necessary to arbitrarily choose some figure for the determination of the ultimate savings accomplished by the refiner in effecting the conversion. For this purpose in calculating the comparative costs the figure of 6000 cubic feet of natural gas per barrel of fuel oil has been used, which is higher than that required in actual practice.

For example, a certain plant is consuming daily 20,000,000 cubic feet of natural gas at 20 cents per thousand cubic feet. At this rate the fuel cost at this refinery for natural gas alone is $4,000 per day.

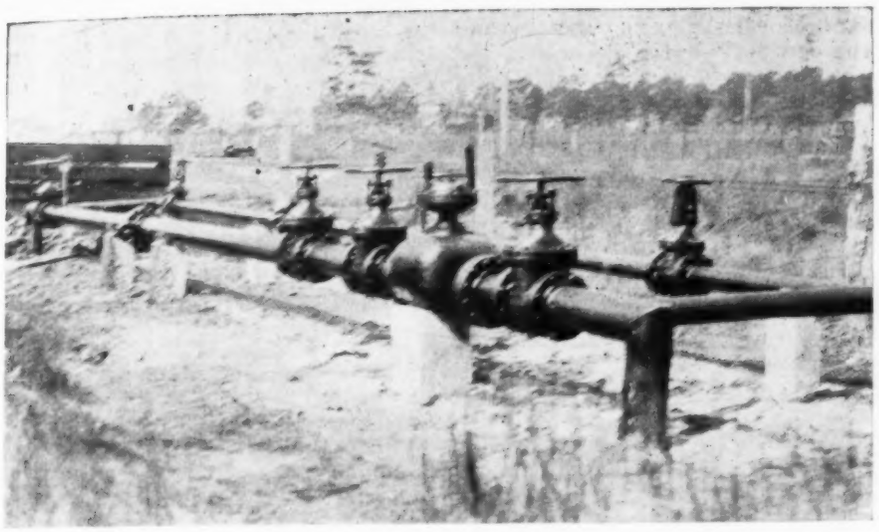
On the basis of 6000 cubic feet of natural gas being equivalent to one barrel of fuel oil, 20,000,000 cubic feet of gas is equivalent to 3335 barrels of oil. This volume of fuel oil, 3335 barrels, valued at the average price of $1.40 per barrel, has



GAS BURNER INSTALLATION AT HUMBLE OIL & REFINING COMPANY' BAYTOWN REFINERY AS USED UNDER CRUDE STILLS



BATTERY OF B. & W. BOILERS AND BAILEY BOILER METERS IN THE POWER PLANT OF THE TEXAS GULF SULPHUR COMPANY, GULF HILL, TEXAS



CHAPLAN-FULTON REGULATOR INSTALLED AT KEENE & WOOLF OIL COMPANY'S HOUSTON REFINERY. MANIFOLD WITH CRANE VALVES IN PROCESS OF INSTALLATION

a market value of $4,670. The difference between $4,000 dollars for natural gas and $4,670 for fuel oil represents the savings to the refinery for fuel alone, and amounts to $670 daily, $20,100 per month or $241,200 annually.

A second example based upon the operations requirements of one of the smaller plants is of interest. The gas consumption for fuel purposes is 1,500,000 cubic feet daily, which at the above rate of 20 cents per thousand, is used at a total cost of $300 per day. This volume of gas is the equivalent of 250 barrels of fuel oil (based on 6000 cubic feet per barrel of oil). The 250 barrels of oil at $1.40 per barrel has a value of $350. Thus the savings in fuel alone for this smaller plant is $50 daily. For the month, $1,500 or $18,000 per year.

Beaumont District

But so much for the cost and saving items, which work out practically to the same end proportionately with any concern using gas as compared with fuel oil.

Magnolia Gas Company, the first company to pipe natural gas into the Coastal territory, has thus far not extended its runs materially greater than to its early consumers, the Magnolia refinery at Beaumont, Magnolia's skimming plant at Magpetco and to The Texas Company's Port Neches plant. The Beaumont refinery has a daily run of approximately 34,275,000 cubic feet, the Magpetco plant 2,435,000, and the Port Neches plant 1,300,000 cubic feet.

The most outstanding growth in natural gas consumption has been with the Houston Pipe Line Company through its 227-mile 18-inch line from the Laredo district fields to the Baytown plant of Humble Oil & Refining Company. From this main line as a foundation the company has expanded to meet its consumers until the company now has a pipe line system reaching 469 miles. Extension work is still going on with this company, an example of which is a 29 mile extension from Alvin to Texas City, where gas will be supplied for industrial and domestic utilization, with a probability of an added extension of the line to Galveston Bay to deliver gas to the City of Galveston for domstic, and possibly industrial use.

Large Consumers

The first natural gas was delivered by Houston Pipe Line Company in the Houston territory in February, 1926, at which time the Humble refinery began burning gas. Consumers of gas furnished by the Houston Pipe Line Company are now as follows:

Freeport Sulphur Company, Freeport and Hoskins Mound, 30,000,000.

Texas Gulf Sulphur Company, Gulf, 18,000,000.

Humble Oil & Refining Company, Baytown, 16,000,000.

Galena-Signal Refinery, Houston, 9,000,000.

Sugar Land Industries, Sugar Land, 2,500,000.

Houston Lighting & Power Company, Houston, 2,000,000.

Deep Water Refineries, Houston, 1,000,000.

Stauffer Chemical Company, Freeport, 1,000,000.

Houston Compress & Terminal, Houston, 1,000,000.

*Houston Natural Gas Company, Houston.

Texas Salt Works, Blue Ridge, 500,000.

The daily delivery of 47,000,000 cubic feet by the Houston Gulf Gas Company is obtained from the Refugio field, Refugio County. A second source of supply for this company is the White Point field of San Patricio. Four wells are now completed in that area, and are capped awaiting the completion of an extension line to connect with the company's main. Present deliveries of this company are as follows:

Sinclair refinery, Houston, 18,000,000.

Houston Gas & Fuel Company, Houston, 13,000,000.

Houston Lighting & Power Company, Houston, 10,000,000.

Crown-Central refinery, Houston, 3,500,000.

Keene & Woolf refinery, Houston, 1,500,000.

Houston suburbs, 1,000,000.

*Distributing company supplying several Houston suburbs and several towns along the main line; also Victoria Central Light & Power Company.

Equipment

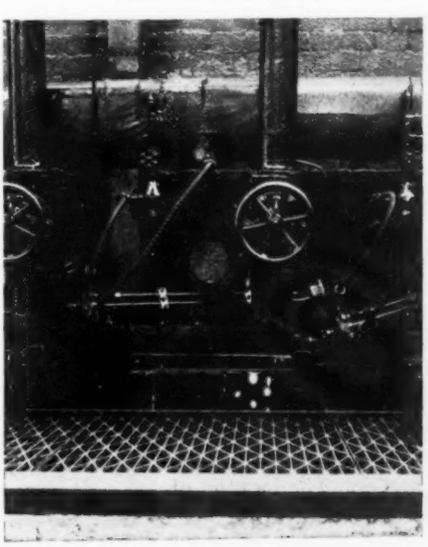
In giving some description of installation of equipment necessary for the change from fuel oil to gas burning the refinery is being given as an example in as much as the bulk of large consumers in this territory are refineries.

Usually when the refiner installs a system for the burning of natural gas, this material is brought to his property line by the transporting company serving him. From this line in to the furnaces, the gas is piped through equipment installed by the user. The necessary equipment consists only of valves, fittings, line pipe, regulators and meters. Most installations include a master meter which checks against the gas company's inlet meter, with additional meters installed for the measurment of gas into each battery of stills or boilers. Burner types are necessarily changed, although in some plants combination oil and gas burners are installed, while other furnaces are equipped with burners of both types. The gas burner is more expensive than the oil burner. Many refiners design and fabricate their own burners when gas is employed as fuel.

Practically every plant in the Gulf Coast section using gas leaves the fuel oil burning system intact and in condition for immediate operation in the event of emergency conditions arising. Thus the steam pump is not removed. the fuel lines leading to furnaces are intact, and the smaller fuel storage tanks are constantly full of oil. Naturally less fuel oil is required in storage for emergency purposes than when fuel oil is constantly used. Steam costs for fuel oil pump operation and for fuel oil atomization purposes to assist in proper combustion, are two factors of cost which are permanently eliminated by using natural gas. The labor required to attend fuel oil burning installations and natural gas burning equipment is practically the same.

From a safety first standpoint natural gas may be said to be slightly more hazardous, and this only because it is invis-

(Continued on page 78)



BABCOCK & WILCOX WATER TUBE BOILERS FIRED WITH NATURAL GAS, USING DU QUESNE BURNERS

Production Climb Will Compel Lower Prices

(Continued from page 40)

unusually good wells, and early this week a banner completion was scored in southeastern Hutchinson County when the McIlroy Oil Company's Cockrell 2 blew in with an estimated production of 8000 barrels daily natural flow. Crude output in the Panhandle gained 3255 barrels daily over the past week, despite a curtailed development program in all the counties, with a daily average of 123,190 barrels for the week. Most of this production is selling at 95 cents, and a ready market is available for all produced.

Gulf is reported to have discontinued tank car movement of crude from its Midland rack in the West Texas district in view of the promised early completion of Gulf Pipe Line Company's 10-inch carrier from Midland to Ranger, where connections will be made with Gulf's present system. However, the new line will continue via Wortham, making a total distance of about 447 miles. Gulf is planning to deliver the first oil from West Texas to Ranger in July, and in the meantime is storing in the field tank farms, with 5000 barrels daily going to Humble Pipe Line Company on contract.

California

Chances for a further cut in California crudes in the near future owing to flush production at Seal Beach have been offset somewhat by a seemingly inevitable advance in gasoline. The anticipated increase in retail gasoline prices ought to come May 2 or 3, according to the street.

It is expected the revision will establish a retail price of 16½ cents in the Los Angeles Basin and contiguous territories and boost San Francisco and vicinity gasoline two cents above its present price.

California's present production of crude oil is in excess of 650,000 barrels, not including about 60,000 barrels of shut-in production. Local consumption cannot take care of this much and tanker rates will not allow California to compete on the Atlantic seaboard at existing prices of crude there. More storage will have to be built, or California will have to reduce the price of crude again, unless there is a drop in production.

Hutchinson County Well Makes Record Panhandle Flow

(Continued from page 53)

feet, with a surface elevation of 3113 feet. This wildcat producer is located more than three miles due south of the Wilcox-Pampa field, and is in the northwest corner of section 66, block 2, I&GN survey. The location of this well affords a possibility of being on the south side of the well known submerged granite ridge that extends across the Panhandle. The Hopkins wildcat producer was started late last summer, using rotary to 2460 feet, where 8¼-inch casing was cemented. The derrick burned while drilling with cable tools in gas production at 2900 feet late in March.

M. M. Travis et al's wildcat discovery well on the Mrs. J. D. Back land in Eastern Gray County was preparing to swab early this week with 1200 feet oil in hole after casing off with 800 feet of open hole. This well blew in April 22 with an estimated flow of 100 barrels pipe line oil per hour from top of granite wash pay at 2845 feet, with a surface elevation of 2689 feet, and developed water trouble in a few days after striking the pay. The water is believed to have been coming from above the pay. The well is near the center of section 44, block 25, and is served by Humble Pipe Line Company.

Humble Pipe Line Company began pumping Panhandle oil at the rate of 500 barrels hourly April 29 through its 10-inch carrier extending from Carson County to Comyn, Comanche County, and the first oil was due to arrive at the latter point late Tuesday or Wednesday. Humble was running 800 barrels hourly through this line early this week, and is the first trunk line to operate out of the district, having a total length of 325 miles. Gulf and Magnolia's jointly owned 10-inch line from Panhandle to Eastland County has been completed, but the operation of Magnolia's end of the system has been held back because of blasting rock for the trench at several points on the line. However, Gulf has filled its section of the line, and loaded all station storage at Truscott, Knox County.

The Texas Company's G. H. Saunders 3, located at the center of section 3, B&B survey, Gray County, is swabbing 70 barrels oil and some water daily from granite wash pay at 2700-90 feet, and proves considerable new territory.

Try to Kill Gasoline Flow In Wildcat

Houston.—Rycade Oil Corporation's Chittim 1, located 14 miles from Eagle Pass, Maverick County, has increased its production to more than 100 barrels of natural gasoline, 54 degrees Baume, and around 30,000,000 cubic feet of gas daily while being deepened. Tools were stuck in the bottom of the hole last week and efforts were being made early this week to kill production with water.

Chittim 1 is a rank wildcat approximately 75 miles from the nearest production, that of the Mirando district. It started flowing between 3,000,000 and 4,000,000 feet of wet gas spraying about two barrels of colorless fluid several months ago from 5518 feet, and has been gradually increasing while being deepened. Drilling difficulties with use of cable tools led to the shipping of a rotary outfit by Rycade from Orange field, and this was used in successfully completing a fishing job. Cable tools were again employed, and the hole has been deepened to 5581 feet.

A Smith separator was placed on the location to handle the production when it began increasing. Around 5580 feet a highly productive formation was penetrated, and the output took a rapid rise.

Preparations are under way now to temporarily kill the production for further deepening the hole.

Spindle Top Back With Two Flush Wells

Houston.—Spindle Top production was holding at 55,400 barrels May 3, following completion of two substantial wells in the south extension, which was opened by Magnolia February 23. Magnolia's Fee 4 made 2880 barrels pipe line oil of around 29 gravity from slightly below 5000 feet, and Gulf's Oakwood 10, a north offset, made 3570 barrels of the same grade from 5010 feet. Completion of these two wells broke a period of practically a week in which no significant initial production was added to the field. The daily average at that time was little more than 48,000 barrels.

Rio Bravo Oil Company abandoned its T. & N. O. 101 to the north of the dome last week after drilling 208 feet into salt topped at 3812 feet. This well failed four times to get production in sands showing traces of oil between 2800 and 3000 feet.

A decrease in activity in the deep sand area is seen with the shutting down indefinitely of five wells during the week. Atlantic shut down operations on its McLean Nos. 10 and 11 at 4155 and 5150 feet respectively. Gulf's Oakwood 9 made salt water at 5050 feet and was temporarily abandoned. Sun Company's McLean 4, a workover well, was given up temporarily at silghtly below 5100 feet. Spindle Top Western Oil Company's Banks 1 was abandoned temporarily at 3400 feet.

Gulf Publishing Company Officers Elected

Houston.—J. F. Carter, Jr., manager of the Mid-Continent office of The Gulf Publishing Company, publishers of *The OIL WEEKLY, The Refiner & Natural Gasoline Manufacturer, and The Filling Station and Petroleum Marketer,* was named a vice-president of the company on Monday of this week. Other officers of the company were re-elected as follows: R. L. Dudley, president; A. L. Burns, vice-president and treasurer; N. L. Dudley, vice-president; S. W. Robinson, secretary. Directors were re-elected as follows: John R. Suman, Chas. H. Lane, A. L. Burns, N. L. Dudley, S. W. Robinson and R. L. Dudley.

Mr. Carter has been with the Gulf Publishing Company for about five years, during which time he has been manager of the North Texas district and later the Mid-Continent district with headquarters at Tulsa.

"OILWELL" CROWN BLOCKS

Side view of 12-inch Rotary Crown Block

"OILWELL" Crown Blocks can be furnished with sheaves made of Cast Iron, Steel or Manganese Steel. The beams used range from 8" to 15" and weigh as high as 50 pounds per foot, depending on the work required.

When furnished for Cable Tool Rigs or where cleaning out and pumping are to be done after completion of the well, a sand line sheave is added, two of the inside beams being extended to carry this sheave.

All "OILWELL" Crown blocks have the following superior features:

1. All sheaves are machined in the grooves, and have holes through the web for attaching a line to pull them up in the derrick.
2. All bearings are either of the Ring Oiling or Roller Bearing type which makes them weatherproof and dustproof. The bearings are held in place in such a manner as to make it impossible for any of the bolts, should they get loose, to drop and cause damage or possible injury to any of the crew. The base of each Ring Oiling Bearing acts as a reservoir for the oil and is of sufficient capacity to make the oil supply last for long periods of operation. Roller Bearings are located in the hubs of the sheaves and are lubricated by means of the Alemite System. Adjustment is the same as that for Ring Oiling Bearings. If desired, one or more sheaves can be furnished with roller bearings and the remainder with ring oiling bearings.
3. Each block is furnished with "T" slotted side rails which permit easy adjustment of all sheaves. Simply loosen two nuts on each bearing.
4. Spacing blocks are of cast design and permit more rigid assembling than when pipe spacers are used.

Top view of 12-inch Rotary Crown Block

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WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Say you saw it in The OIL WEEKLY

Eight Wells Send Seal Beach Up to 59,645 Barrels

(Continued from page 45)

of their own oil or who have made arrangements for disposing of it, are E. J. Miley, H. J. Barneson, California Petroleum Corporation, Standard Oil Company, Associated Oil Company, Richfield Oil Company, Marland Oil Company, George Getty and Paul Getty.

While none of the above has announced intentions of buying promiscuously any crude products at Seal Beach, the independents, generally speaking, are not displaying any panic over disposition of their crude. Although it is not believed the above mentioned or other crude purchasers who might enter the field will purchase the flush on the present gravity schedule, those who are without storage facilities seem to believe they will have no trouble selling their oil at a small price below the market.

Seal Beach Outlook

Out of 79 wells drilling below 4000 feet at Seal Beach, 22 are standing cemented in the Selover sand and are expected to be brought in within two weeks, barring occasional accidents.

California Petroleum Corporation, for instance, has its No. 2 and No. 3 standing cemented. The General Petroleum Corporation's Wassem 3 is standing cemented at 4769 feet. George Getty's No. 1, No. 3, No. 4 and No. 7 are standing cemented ready to drill out. Hart and Company's No. 1 is standing cemented in the Selover sand, as is the Richfield's Bonner 1 and the Petroleum Securities Company's Bryant 1 and Bryant 2. The Marland Oil Company, discoverer of the field, has four wells due soon on its McGrath and Selover property, standing cemented at depths ranging from 4663 to 4795 feet. The South Basin Oil Company's Copeland 1 is standing cemented at 4650 feet, and the Superior Oil Company's Fee 1 and Kenkel 1 are both standing cemented. The Associated Oil Company's Bryant 5 is standing cemented at 4631, while on its Hellman property, the Associated's No. 3 and No. 10 are standing cemented.

During the past week the number of wells to spud in was 12; wells drilling, 145; rigs, 24; locations, 26; producers, 36, giving the field a total of 231 operations. With these figures in sight, no appreciable let-up in field activity can be expected soon.

WEST TEXAS PRODUCTION

Crane County

	Producing Wells	Daily Average
Church & Fields—		
Humble Oil & Refining Company	8	7,415
Eastland Oil Co. & Collett-O'Keefe	4	6,900
Simms Oil Co. & Atlantic	7	6,075
Tidal Oil Co. & Turman-Maxwell	8	5,520
Gulf Production Company	6	3,435
Geo. Church & Bert Weekly	1	1,540
Independent Oil & Gas Company	1	1,375
Cromwell & Pickrell	1	930
Magnolia Petroleum Company et al	12	520
Prairie Oil & Gas Company	7	485
Geo. Church & Fields	1	125
Stidham & Thrasher	1	10
Totals	57	34,330
Gulf-McElroy—		
Gulf Production Company	18	10,350
Marland-Hughes—		
Marland Oil Company et al	18	1,280
The Texas Company	10	375
McMan Oil & Gas Company	2	150
Independent Oil & Gas Company	1	10
Totals	31	1,815
Totals for Crane County	106	46,595

Upton County

Roxana Petroleum Corporation	30	4,325
Marland Oil Company	79	3,475
Dixie Oil Company	27	2,935
T. & P. Coal & Oil Company	11	2,610
Independent Oil & Gas Company	25	1,365
Prairie Oil & Gas Company	5	1,085
The Texas Company	16	515
Amerada Petroleum Corporation	5	420
Humble Oil & Refining Company	6	395
Gulf Production Company	11	375
Sun Oil Company	10	230
Wentz Oil Corporation	3	175
Simms Oil Company	3	145
Republic Prod. Co. & Marland	5	120
Atlantic Oil Prod. Company	1	35
Texon Oil & Land Company	1	7
Totals	237	18,242

Pecos County

Mid-Kansas & Transcontinental	4	(*)495
Texon Oil & Land Company	1	10
Totals	5	505

Reagan County

Big Lake Oil Company	103	17,930
Texon Oil & Land Company	72	7,280
Totals	175	25,210

Winkler County

Gulf Production Company	1	(*)225
Southern Crude Oil Pur. Company	2	(*)1,115
Totals	3	1,450

Jones County

Phillips Petroleum Company	7	1,075
Marland Oil Company	3	695
Mid-West Exploration Company	4	420
Atlantic Oil Producing Company	1	60
Totals	15	2,250

Mitchell County

The California Company	81	2,820
Magnolia Petroleum Company	19	625
Atlantic Oil Producing Company	8	465
Eastland Oil Company et al	9	310
Tidal Oil Company	2	25
Freed Carey et al	1	15
Totals	120	4,260

Howard County

Marland Oil Company	24	1,440
Magnolia Petroleum Company	21	820
Reeves & Apperman et al	2	180
Bristow & Merrick	2	150
Lockhart & Co. & Carey	4	125
Humble Oil & Refining Company	2	50
Comet Petroleum Company	1	30
Dixie Oil Company	1	30
Gulf Production Company	2	25
Tidal Oil Company	1	25
Totals	60	2,880

Crockett County

Humble & Marland Oil Company	9	805
J. K. Hughes Development Company	4	225
Republic Production Company	2	185
Gulf Production Company	6	155
Carl Cromwell	4	150
Humble Oil & Refining Company	2	95
Roxana Petroleum Corporation	1	20
Totals	28	1,630

Loving County

Lockhart & Company	1	20

Glasscock County

Marland & Texon Oil & Land Co.	1	....

Scurry County

Northwest Company	4	30

Ector County

J. S. Cosden et al	1	20

Garza County

Emerald Oil Company	1	8
Grand Totals for 14 counties	758	103,000
Grand Totals for previous week	751	101,681

Any of Them

ACCURATE

Wall thickness is uniform. The trueness of the Smith Method of manufacture means that wall thickness is absolutely uniform. With the metal forming accurately gauged circle within circle, it cannot be otherwise.

O. D. and I. D. are perfect circles. Every Smithsteel Coupling is twice trued to absolute outside diameter and machine cut to absolute inside diameter before threading.

Thread and Taper are Accurate. The Smith Method of threading holds the coupling in true circular alignment, while the special coupling machine cuts the threads, accurate for pitch and depth, and with the correct lead and taper accurately and automatically controlled. Nothing is left to chance.

UNIFORM

Whether in rotary or cable tool drilling, each string of casing that is set in the hole becomes more important. It is longer, more difficult to run, and the well represents a greater investment in money—and often, more important—in time.

Each string puts a greater demand on the coupling.

Smithsteel Couplings always work, because they are made by the most accurate manufacturing process known, insuring absolute accuracy and uniformity in every dimension.

The result is that Smithsteel couplings will go together quickly, and easily on the derrick floor, and make a straight, tight joint that will hold right down to the deepest sands. The Smithsteel coupling grips tightly and evenly at every point. They hold without crushing and will not "gall."

Our new booklet "Smithsteel Couplings" will show you how the A. O. Smith Corporation is meeting the needs of the oil production department for couplings that will handle the long strings for the present deeper drilling.

If you have not received your copy, one will be mailed on request.

A. O. SMITH CORPORATION · · *Milwaukee, Wisconsin*

Couplings Division

Pittsburgh—Tulsa—Los Angeles

SMITHSTEEL COUPLINGS

Say you saw it in The OIL WEEKLY

TEXAS PANHANDLE PRODUCTION

	No. Producing Wells	Daily Average Prod.
Carson County		
American Refining Company	9	665
Champlin Refining Company et al	5	235
Delmar Oil Company	1	35
Empire Gas & Fuel Company	3	155
Gates Oil Company	1	5
Gulf Production Company	19	1,175
Magnolia Petroleum Company	1	65
Marland Oil Company	21	1,510
Marsten Oil Company	1	105
McMan Oil & Gas Company	9	2,125
Nunn-McAuley Oil Company	6	1,120
J. T. Parks et al	2	250
Republic Production Company	1	15
Prairie Oil & Gas Company	6	1,710
Roxana Petroleum Corporation	11	1,405
W. W. Silk et al	3	60
Skelly Oil Company	4	1,000
Southwestern Oil & Dev. Company	1	10
Sunny Jim Oil Company	2	10
The Texas Company	14	430
Totals	120	12,085
Gray County		
Canyon Oil Co.-Champlin Ref.	1	5
Empire Gas & Fuel Company	3	85
Gulf Production Company	14	1,100
Humble Oil & Refining Co.	11	500
Magnolia Petroleum Company	19	385
Marland Oil Company	1	25
McMan Oil & Gas Company	10	510
Nabob Oil & Gas Company	1	70
Osborne & Daniels	1	10
Phillips Petroleum Company	7	615
Prairie-Shamrock Petroleum et al	15	1,280
Pure Oil Company	5	205
Roxana Petroleum Corporation	1	....
Sun Oil Company	3	95
The Texas Company	5	285
Wilcox Oil & Gas Company	21	2,120
L. C. Young et al	1	10
Totals	118	7,300
Hutchinson County		
Alaska Petroleum Company	1	20
Amerada Petroleum Corporation	9	690
American Refining Company	8	425
Antelope Creek Oil Company	1	20
Apex Oil Company	2	415
Atlantic Oil Prod. Co. et al	1	30
Badger Oil Company	2	70
Bain et al	1	85
Barnsdall Oil Company	2	190
R. G. Barnum et al	1	45
Black Diamond Oil Company	1	10
Brookins-Kistler et al	2	150
Buffalo Oil Company	2	95
Canadian River Oil Company	6	235
Center Dome Oil Company	2	15
Centerfield Oil Company	1	5
Coble-Whittenburg Oil Company	4	355
Cockrell-McIlroy Oil Company	6	3,025
Collier-Taylor et al	1	....
Continental Oil Company	1	5
Currie Bros. & J. R. Phillips	4	695
Delmar Oil Company	2	25
Derby Oil Company et al	8	2,145
Devonian Oil Company	9	505
Dixon Creek Oil Company	41	7,950
Double Five Oil Company	1	40
Douglas Oil Company et al	2	15
J. B. Dunnigan & Ochiltree Company	2	155
Echo Oil Company	3	1,745
Empire Gas & Fuel Company	27	2,675
Fain-McGaha-Murchison et al	2	125
Fly-Blackburn Oil Company	2	75
Fronterhouse & Wetzel	2	55
Four Y Oil Company	1	15
Gates Oil Company	4	155
Golding-Phillips Oil Company	1	....
Goldelline Oil Corporation	6	455
Gopher Oil Company	1	30
Gulf Production Company	36	4,110
Gulf-Cline-Panhandle Ref. Co.	54	5,755
W. H. Holmes et al	2	145
Holmes-Currie-McKnight	3	195
Homestead Oil Company	1	....
J. K. Hughes Development Company	22	1,350
Japhet Prod. Co. et al	5	405
Julian Petroleum Corporation	5	750
Kistler Oil Company	3	405
Kistler-Lenix et al	2	445
J. H. Lenix et al	1	....
Lenix Oil Company	1	50
Lucky Ten Oil Company	4	100
Magic Eighty Oil Company	1	15
Manhattan Oil Company	1	25
Marland Oil Company	57	3,395
S. D. McIlroy	4	155
S. D. & W. W. McIlroy	8	730
McIlroy Oil Company	4	505
McIlroy-Herring Oil Company	6	1,020
McMan Oil & Gas Company	22	2,650
J. H. Middleton et al	4	150
Mid-West Explo. Co. et al	20	3,128
Minnehoma O. & G. Co. & Kistler	3	1,100
Newby Oil Company	2	60
New Domain Oil & Gas Company	3	90
Panhandle Oil Company et al	1	....
Pantex Oil Company	9	1,195
Paramount Oil Company	1	1,060
Pattison-Lenix Oil Company	2	320
J. R. Phillips et al	5	1,610
J. R. Phillips & W. S. Heywood	3	690
Phillips Petroleum Company et al	210	25,890
Plains Drilling Company	1	10
Prairie-Phillips Pet. Co. et al	66	10,775
Pure Oil Company	3	450
Relief Oil Company	3	455
Henry Riley et al	1	....
Henry Riley & W. H. Holmes	2	125
Rock Island Oil Company	1	....
Roxana Petroleum Corporation	9	520
Ryan Consolidated Oil Corporation	4	275
Skelly Oil Company	26	2,155
Skia-Tex Petroleum Company	7	800
J. L. Smith	2	175
Smith-Bynum et al	2	40
Southwestern Oil & Dev. Company	5	800
Spring Creek Oil Company	4	445
Summit Oil & Ref. Corporation	3	270
Sunburst Oil Company	2	105
Sunrise Oil Company	1	....
Sunny Jim Oil Company	5	230
The Texas Company	1	35
Tex-O-Oil Company	1	15
Travelers Oil Company	3	275
Triangle Oil Company	5	605
J. D. Ward et al	3	125
White Eagle O. & R. Co. et al	26	1,610
Totals	855	100,530
Moore County		
M. Cadman et al	1	....
Potter County		
Amarillo Oil Company	1	30
Wheeler County		
Continental Oil Company	3	385
Gibson Oil Corporation et al	7	790
Laycock Oil Company	1	....
Magnolia Petroleum Company	5	360
Marland Oil Company	1	400
Mid-Continent Petroleum Corp.	1	15
Mid-Kansas O. & G. Company	3	445
Murchison-Main-McGaha-Humble	1	40
The Texas Company	2	90
Tidal Oil Company	1	675
J. O. Whittington et al	2	5
World Oil Company	2	40
Totals	28	3,245
Grand Totals	1,122	123,190

CAPACITY -
and Close Regulation

A FOUR INCH BUCK CASING HEAD REGULATOR

Has passed over 1,200,000 Cu. Ft. of Gas in 24 hours, from 5-points intake to 7-points discharge — and maintained intake vacuum within 2 ounces of the 5-point setting.

BUCK
CASING HEAD REGULATORS

BUCK CASING HEAD REGULATORS are Good News for the Gas Plant Superintendent. They "go out and get the gas." Their great capacity, exceedingly close regulation, low operation and maintenance costs, open the way to new economies of Regulator purchase and installation. For instance, Four Inch BUCK Regulators are being used where 6-inch "ordinary" regulators would otherwise be required, because their great capacity handles the flow. Their close regulation and great capacity result from the use of the Buck Sleeve Valve principle.

BUCK REGULATORS are sturdy, simple and strong. Built to deliver the goods in actual field use in the most complete and satisfactory way. Easy to install and require the minimum of attention in the field.

No Dash Pots—No Chatter

There are no dash pots on BUCK REGULATORS. The Sleeve Valve principle aids in eliminating chatter and makes dash pots unnecessary. Thus there is no danger of freezing of water in dash pots,—the sensitivity of the Regulator is in no way interfered with—and there is no time nor labor wasted in keeping dash pots filled and in working order.

Graduated Scale Beams Make Easy, Accurate Setting

BUCK CASING HEAD REGULATOR BEAMS are graduated,—on one side for inches mercury vacuum and on the other, for pounds pressure. This makes easy, accurate setting in the field. Beams are reversible so the Regulator is a Vacuum or Back Pressure Regulator at will.

Locked Beam Weights— Keys Furnished

The Counterpoise Weights are locked on the Scale Beam by a set screw turned with a key supplied with each Regulator. Keys may be issued by Superintendents only to Line Walkers and other authorized persons. This feature eliminates indiscriminate tampering with Vacuum or pressure settings.

Long Wear Diaphragms

We make our own Diaphragms. We make them of a special tannage of selected No. 1 chrome leather, treated by a process that gives utmost flexibility without sacrifice of strength, and renders them impervious to gasoline. These Diaphragms have operated in the field for long periods immersed in gasoline and as yet show no signs of weakening.

Weather Shields

The working parts of BUCK CASING HEAD REGULATORS—fulcrums, valve stems, etc., are protected by a strong, sturdy iron hood. This not only protects the working parts from snow, sleet or rain, but also from accidental injury. This shield or hood is so designed that it in no way interferes with the free working of the Regulator.

Get our Bulletin No. 2

We will gladly mail you complete descriptions, illustrations, cross section diagrams and capacity tables of BUCK CASING HEAD REGULATORS. Better yet, get acquainted with our representative and do as others are doing —put BUCK REGULATORS to work on your own properties.

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Type A Sensitive Regulators

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BELTING
Rubber Canvas
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Air Fire
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Water

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Asbestos Hemp
Flax Rubber
Leather

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Leather Fiber

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White Colored
Wool

MISC'L
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Shovels

Gustin-Bacon Mfg. Co.
Vacuum Control Division
KANSAS CITY, MO.

Southwest Division Is Strong Unit Of Gas Association

Expansion of membership has been rapid since organization late in 1926

By GEORGE McQUAID

DALLAS, Texas.—When the annual big convention of the Natural Gas Association of America meets in Cincinnati, May 9, it will find a lusty organization created since the last annual meeting, functioning in the most rapidly developing and greatest potential field for natural gas in the entire country. This new organization is the Southwest Division of the Natural Gas Association of America. It was brought into activity under authority conferred by the association through the activity of a committee composed of officers and directors of the association resident in the Southwestern States. N. C. McGowen of Shreveport, vice president of the association, is chairman of the new division. In the organization work he was assisted by H. C. Morris, vice president of the Dallas Gas Company; Frank L. Chase, vice president of the Lone Star Gas Company; H. L. Montgomery, general manager of the Empire Gas and Fuel Company; A. W. Leonard, president of the Devonian Oil Company; R. C. Sharp, president of the Oklahoma Natural Gas Corporation, and other prominent natural gas producers and distributors in the Southwest.

The Southwest Division embraces the States of Arkansas, Kansas, Louisiana, Oklahoma and Texas. Within these States is the greater part of the activity in development and expansion of the natural gas business as well as the greater part of the production and potential production. Also within the Southwest Division is a large part of the manufacture of natural gasoline.

The Southwest Division has held one organization meeting since it was formed and one quarterly meeting. The latter was held in Dallas, April 12 and 13, and was attended by more than 200 men identified with the natural gas industry. The registration list was exactly 200. The assistant manager of the Dallas Chamber of Commerce in charge of conventions said after the meeting that it was the only convention ever held in Dallas during his connection with the Chamber that had a greater attendance than preliminary estimates indicated.

The Dallas meeting showed intense interest on the part of natural gas executives and men in the problems that are peculiar to the Southwest and the discussions were pertinent and informative. The meeting alone was worth a great deal more to the gas companies than the cost of their membership, according to executives who participated in the discussions and who will profit from the exchange of ideas there.

Membership in the Natural Gas Association of America constitutes membership in the Southwest Division for all natural gas members who are interested in the business in the Southwest. The division is simply an intensification of the activities of the association in the States constituting the division. This membership has increased to the extent of about 200 active members and several company members since the organization of the division during the close of 1926. The membership is still far less than the extent of the industry and the number of men in the business in the Southwest warrants, however, and the object of the division now is to bring the membership up to what it should be in view of the importance of the business in the Southwest while at the same time doing constructive work in behalf of the industry and the users of natural gas.

N. C. McGOWEN,
Chairman Southwest Division Natural Gas Association

Great expansion of the use of natural gas, both in the homes and in industry, is under way in the division at this time. The great producing fields of Arkansas, Louisiana, Oklahoma and Texas that are not being called upon for any considerable part of their potential production are leading to the construction of long gas lines of great capacity to distant points as well as to the establishment of extensive industries close to the fields. This is giving an impetus to industry in the Southwest that promises to mark an expansion of manufacturing in these States such as has not heretofore been attempted.

One of the chief objectives of the Southwest Division is to bring about better understanding and closer co-operation between the users and the distributors and between the producers and transporters of natural gas to the end that closer co-operation may be had with regulatory bodies and greater conservation in the field and in the use of natural gas is expected to follow.

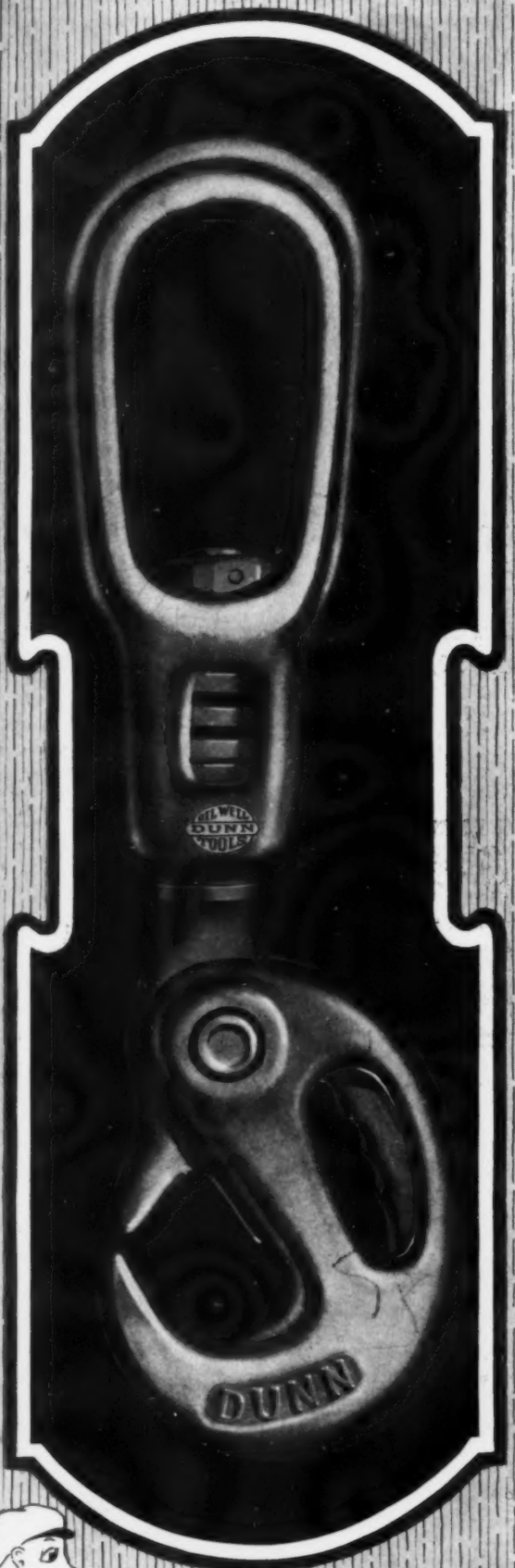
During the past year and in the coming year the construction of natural gas pipe lines in the Southwest will exceed that activity in any other part of the country. The ideal fuel will be made available to homes and industries in such general extent that no other section of the country will be so fully and efficiently supplied.

In the orderly accomplishment of this expansion the building of understanding among all concerned, the Southwest Division will have its great field for usefulness to the industry and to the people who use or want to use natural gas.

Marston Named President T. P. Coal and Oil

Fort Worth, Texas.—Edgar J. Marston of Fort Worth was elected president of the Texas Pacific Coal & Oil Company at the annual meeting held April 20 at Thurber, Texas, succeeding J. Roby Penn, who retired as president to devote more time to personal interests. Penn will continue as a director of the company and was elected chairman of the executive committee. R. Seibel of Fort Worth succeeds Edgar J. Marston as treasurer. All other officers of the company were re-elected, including the following: Edgar L. Marston of New York and San Francisco, chairman of the board; O. E. Mitchell, Thurber, and E. R. Lederer, vice presidents, and H. W. Knox, secretary.

[DUNN TOOLAGRAM]



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This new size Dunn Safety Automatic Spring Hook has been designed to meet the demand for a rod hook of lighter weight and smaller capacity than heretofore available, yet retaining the high factor of safety, speed and ease of operation embodied in our larger models.

Weight 20 lbs.
Capacity 15 tons

These hooks are also made by us in four larger sizes, for rods and tubing, to meet varying conditions and demands.

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Dunn Super-Safety Rotary Tong The "Speedster"

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Safety need never be sacrificed for speed if Dunn SUPER-SAFETY Oil Well Tools are used.

It is generally known and acknowledged that they are world-beaters.

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Program Provides Interest for Every Gas Man

Reservations indicate large attendance and complete exhibits at annual session of Natural Gas Association

CINCINNATI, Ohio. — Judging from hotel reservations already made, space reservations for booths, and the number of communications which have reached convention headquarters, the 1927 meeting of the Natural Gas Association of America, to be held here May 9, 10, 11 and 12, will be well toward the head of the list among the outstanding meetings of the association.

Special effort is being made by those in charge of arrangements to have the meeting of such a character as to appeal to all members of the association, whatever their connection in the gas industry.

Addresses and reports are being prepared by men who are known leaders in their various fields, and these will doubtless contain much that no natural gas man can afford to miss. The entire program was printed in this publication on April 15, but each day's activities are briefly sketched herewith:

Monday morning, May 9, the exhibition prepared by the members of the Association of Natural Gas Supply Men will open in Music Hall, on Elm Street.

Meeting of the technical and research committee and sub-committees will be held Monday morning at 10 o'clock in the Gibson Hotel.

Luncheons

Promptly at noon on Monday the supply men will serve a free lunch to all gas men wearing badges. These luncheons will be continued throughout the meeting.

The registration booth will be located in the front part of the auditorium of the Music Hall, Elm Street, and will be open and ready for the registration of members promptly at 9 o'clock Monday morning.

At 2 o'clock Monday afternoon the annual meeting of the Natural Gas Supply Men, Inc., will be held.

The annual meeting of the board of directors of the Natural Gas Association of America will be held at the Gibson Hotel at 4:30 o'clock Monday. A dinner will follow at 6:30.

Technical Sessions

Tuesday morning the technical sessions will begin and there will be papers on such subjects as "The Education of the Employe," "The Blue Star Laboratory," and "Selling Gas and Gas Appliances for Domestic Purposes."

Tuesday afternoon the papers will deal with "Fundamentals of Rate Making," and the "Selling of Gas for Commercial and Small Industrial Uses." Reports will also be received from the publicity committee and Wrinkle Editor.

R. W. GALLAGHER
President, Natural Gas Association of America.

Special problems of the natural gas industry in the Southwest will be taken up Wednesday, and following this will come the discussions of a number of fixed questions.

J. D. Creveling will conduct the round-table session. The questions are:

1. What effective methods do you recommend for reducing distribution system leakage?
2. What practical methods would you use for determining transmission leakage?
3. What is the practical range for intermediate and low pressure regulators?
4. What practical methods are being used for controlling deliveries from high pressure wells?
5. What method do you regard as most effective in gaining the good will of the customer?
6. What new methods have been developed for removing fluids from gas pipe lines?
7. What is the value to gas companies of Home Service Departments?
8. How should gas companies promote safety among their employes?
9. What are the new developments in gas meters?
10. What are the practical applications on welding of natural gas lines—field, transmission and distribution?

Officials of the convention will close on Thursday morning with the reading of a paper on "The use of Gas and Air in Oil Recovery."

Entertainment

Much is planned for entertainment of delegates to the convention. On Monday night the supply men will put on one of their famous vaudeville shows and smoker. Free tickets for this affair will be handed to each member at the registration booth.

Exhibits will be extensive this year. Heretofore a large part of the gas convention exhibits have been made up of drilling and pipe line equipment. This year, both the north and south wings of Cincinnati's famous Music Hall will be devoted to exhibits which will be presented in new and unique ways. The north wing will be given over to exhibits of drilling and pipe line equipment. The south wing will be devoted to exhibits of manufacturers of industrial and domestic gas appliances and equipment.

Wednesday night the twenty-second annual banquet of the association will be held in the new Gibson Hotel. A number of prominent natural gas men and visitors will be at this gathering and among the speakers will be C. J. Hicks, of New York City, and Dr. John L. Davis, also of Gotham.

The following exhibitors will have displays in the Appliance Hall:

Ac-Me Co., The, Dallas, Texas, Booth 41.

AKme Flue, Inc., Baltimore, Md., Booth 86.

American Heater Corp., St. Louis, Mo., Booth 93.

Automatic Gas Steam Radiator Co., Pittsburgh, Pa., Booth 40.

American Gas Products Corp., New York City, Booth 13.

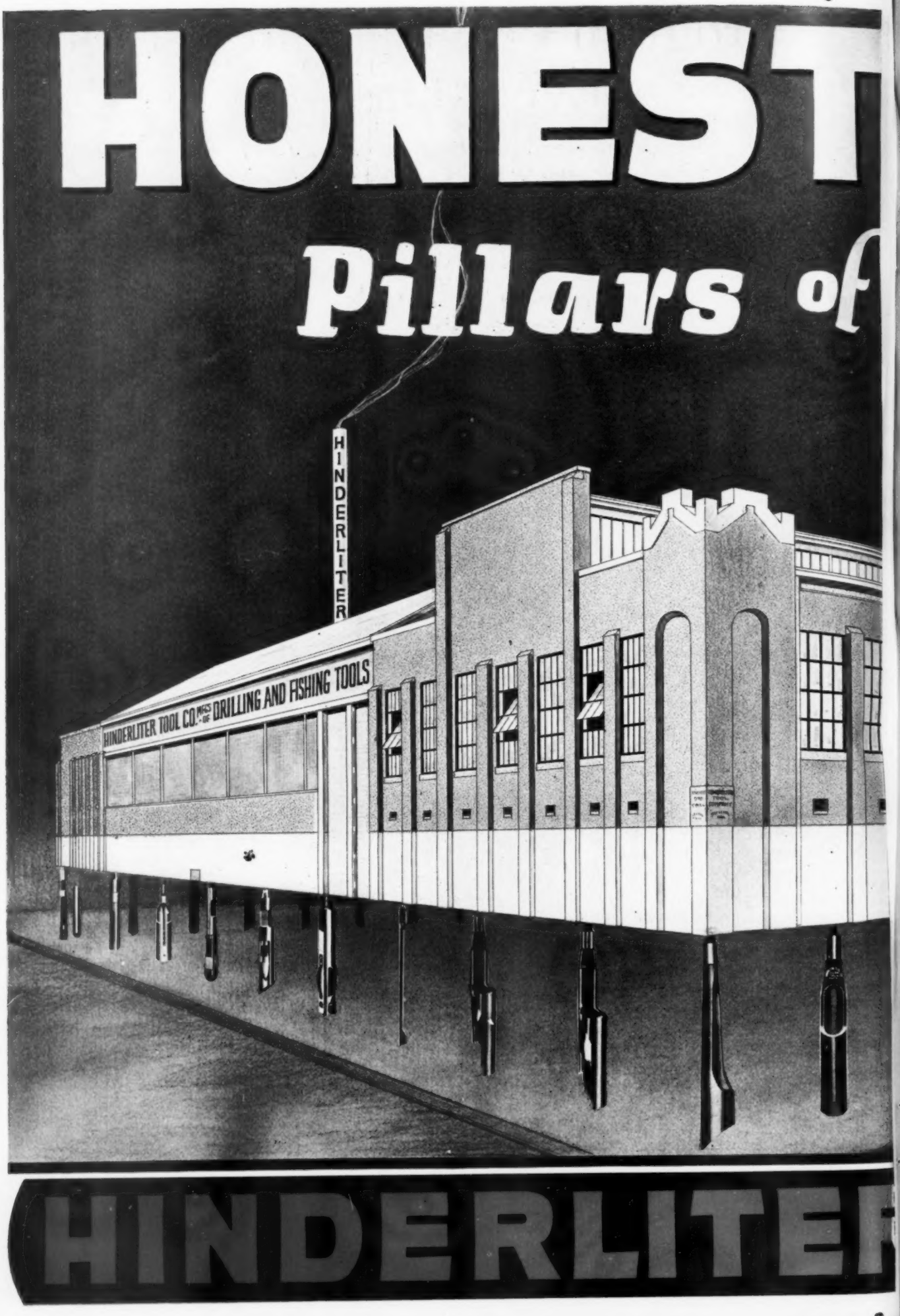
Bastian-Morley Co., LaPorte, Ind., Booth 67.

Bryant Heater and Mfg. Co., Cleveland, Ohio Booth 11.

Burroughs Adding .Machine Co., Detroit, Mich., Booth 38.

B-Line Boiler Co., Cleveland, Ohio, Booths 83 and 84.

(Continued on page 70)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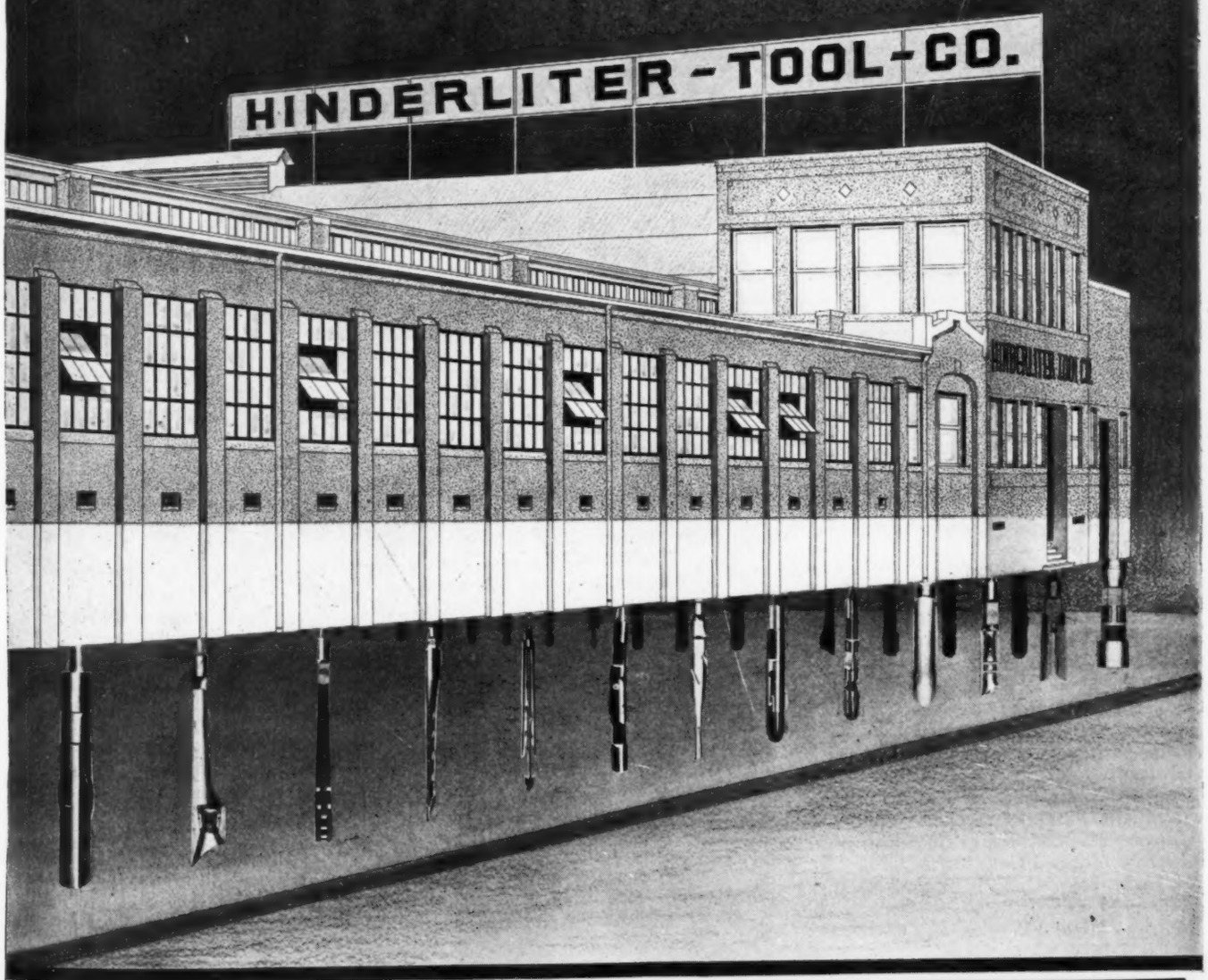


TOOL CO. TULSA, OKLA.

GUY F. BACHELOR
General Secretary, Natural Gas Association.

Campbell - Hausfeld Co., Harrison, Ohio, Booth 53.

The Cleveland Gas Burner & Appliance Co., Cleveland, Ohio, Booth 52.

Cleveland Gas Meters Co., Cleveland, Ohio, Booth 92.

Cold Stream Corporation, Charlottesville, Virginia, Booth 85.

The Columbus Heating & Ventilating Co., Columbus, O., Booth 89.

Cribben & Sexton Co., Chicago, Ill., Booth 87.

Detroit-Michigan Stove Co., Detroit, Mich., Booth 65.

Eriez Stove & Mfg. Co., Erie, Pa., Booths 96 and 97.

Estate Stove Co., Hamilton, Ohio, Booth 21-21A.

The Foxboro Company, Foxboro, Mass., Booth 12.

Franklin Gas Burner Mfg. Co., Cincinnati, Ohio, Booths 98 and 99.

General Gas Light Company, Kalamazoo, Mich., Booth 14.

The J. H. Grayson Mfg. Co., Athens, Ohio, Booth 9.

The Hall Manufacturing Co., Toledo, Ohio, Booth 60.

Hays Manufacturing Co., Erie, Pa., Booth 91.

Helme & McIlhenny, Philadelphia, Pa., Booth 6.

Homestead Heater Co., Newark, N. J., Booth 15.

Home Incinerator Co., Milwaukee, Wisconsin, Booth 27.

Honeywell Heating Specialties Co., Wabash, Ind., Booths 56-71.

Hoover Manufacturing Co., Cincinnati, Ohio, Booth 16.

Majestic Mfg. Co., St. Louis, Mo., Booth 2.

Metric Metal Works, Erie, Pa., Booths 57-58-59.

Minneapolis Heat Regulator Co., Minneapolis, Minn., Both 39.

New Process Stove Co., Div. Cleveland, Ohio, Booth 28.

The Ohio Foundry & Mfg. Co., Steubenville, Ohio, Booth 31.

Peerless Heater Co., Pittsburgh, Pa., Booth 88.

Pennsylvania Furnace & Iron Co., Warren, Pa., Booth 90.

The Puritan Cabinet Dryer Co., Cincinnati, Ohio, Booth 17.

Remington Typewriter Co., New York, N. Y., Booth 42.

Reliable Stove Co., Div., Cleveland, Ohio, Booths 94-95.

Reznor Manufacturing Co., Mercer, Pa., Booths 35-36.

Richardson & Boyton Co., New York City, Booth 7.

The Root Mfg. Co., Cleveland, Ohio, Booth 43.

Geo. D. Roper Corp., Rockford, Ill., Booths 68-69-70.

Sprague Meter Co., Bridgeport, Cann., Booths 63-64.

Standard Gas Equipment Corp., Vulcan Div., New York City, Booths 61-66.

The Tappan Stove Co., Mansfield, Ohio, Booths 4-5.

Texo Sales Company, Inc., Cincinnati, Ohio, Booth 81.

The Union Gas & Electric Co., Cincinnati, Ohio, Booths 20-21B-21C-22-23-48-49.

Welsbach Company, Gloucester City, N. J., Booths 18-19.

In Machinery Hall

Acme Fishing Tool Co., Parkersburg, W. Va., Booth 255.

Bessemer Gas Engine Co., Grove City, Pa., Booth 272.

Barber-Greene Co., Aurora, Ill., Booth 221.

The Bristol Co., Waterbury, Conn., Booth 254.

A. M. Byers Co., Pittsburgh, Pa., Booth 205.

Cameron Tool & Supply Co., Cameron, W. Va., Booth 259.

Coen Co., Inc., San Francisco, Cal., Booth 263.

Chaplin-Fulton Mfg. Co., Pittsburgh, Pa., Booth 244.

Clark Brothers Co., Olean, N. Y., Booth 214.

The Connersville Blower Co., Connersville, Ind., Booth 217.

Continental Supply Co., St. Louis, Mo., Booths 268-269-270.

C. & G. Cooper Co., Mt. Vernon, Ohio, Booth 226.

FRED A. MILLER
President, Natural Gas Supply Men, Inc.

Crandall Packing Co., Pittsburgh, Pa., Booth 208.

Crane Company, Chicago, Ill., Booth 249.

Dearborn Chemical Co., Chicago, Ill., Booth 247.

S. R. Dresser Mfg. Co., Bradford, Pa., Booth 232.

The Eclipse Paint & Mfg. Co., Cleveland, Ohio, 265.

The Fisher Governor Co., Marshalltown, Iowa, Booth 277.

Frick and Lindsay Co., Pittsburgh, Pa., Booths 266-267.

Garlock Packing Co., Palmyra, N. Y., Booth 273.

Giant Manufacturing Co., Council Bluffs, Iowa, Booth 220.

C. M. Heeter Sons & Co., Inc., Butler, Pa., Booth 222.

Hill, Hubbell & Co., Tulsa, Oklahoma, Booth 264.

Hope Engineering & Supply Co., Mt. Vernon, Ohio, Booth 215.

Jarecki Manufacturing Co., Pittsburgh, Pa., Booth 228.

Larkin & Co., Butler, Pa., Booth 256.

The Linde Air Products Co., New York City, Booths 245-246.

The Lattimer-Stevens Co., Columbus, Ohio, Booth 250.

A. Leschen & Sons Rope Co., St. Louis, Mo., Booth 223.

Ludlow Valve Mfg. Co., Troy, N. Y., Booth 236.

The Lunkenheimer Co., Cincinnati, Ohio, Booth 274.

Macwhyte Company, Kenosha, Wisconsin, Booth 206.

Mueller Co., Decatur, Ill., Booth 218.

National Supply Co., Toledo, Ohio, Booths 229-230,

National Tube Co., Pittsburgh, Pa., Booths 211-212-213.

Oil Well Supply Co., Pittsburgh, Pa., Booths 224-235.

Pittsburgh Equitable Meter Co., Pittsburgh, Pa., Booths 225-234.

Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa., Booth 207.

The Ridge Tool Co., Elyria, Ohio, Booth 216.

Safety Gas Main Stopper Co., Brooklyn, N. Y., Booth 239.

M. B. Skinner Co., Chicago, Ill., Booth 219.

The Stacey Bros. Gas Construction Co., Cincinnati, O., Booth 262.

W. P. Taylor Co., Buffalo, N. Y., Booth 209.

The United States Electrical Tool Co., Cincinnati, O., Booth 248.

Victaulic Company of America, New York City, Booth 276.

Wheeling Steel Corporation, Wheeling, W. Va., Booth 243.

Wailes Dove-Hermiston Corp., New York City, Booth 227.

Westcott Valve Co., Inc., East St. Louis, Ill., Booth 271.

W-K-M Company, Inc., Houston, Texas, Booths 201-202-203-204.

Wyoming Shovel Works, Wyoming, Pa., Booth 210.

Young Engine Corporation, Canton, Ohio, Booths 260-261.

Pipe Line Financing

Applications having been received in excess of the amount of issue, this advertisement appears as a matter of record only.
New Issue
$3,500,000
Rio Grande Valley Gas Company
First Mortgage 7% Gold Bonds
Series "A"
Dated April 1, 1927
Due April 1, 1937
New Issue
$2,500,000
Midwest Gas Company
First Mortgage 7% Gold Bonds
Series A
To be dated November 1, 1926
To mature November 1, 1936
As all of these bonds have been subscribed for, this advertisement appears only as a matter of record.
New Issue
$3,000,000
Southern Gas Company
First (Closed) Mortgage 6½% Sinking Fund Gold Bonds
With Detachable Stock Purchase Warrants
Dated November 1, 1926
Due November 1, 1936

THE foregoing represent some of our Gas Company underwritings.

We underwrite Bond Issues of Natural Gas Companies secured by mortgages on pipe lines and distributing systems.

We invite inquiries relating to such financing

G. E. BARRETT & CO.

Incorporated

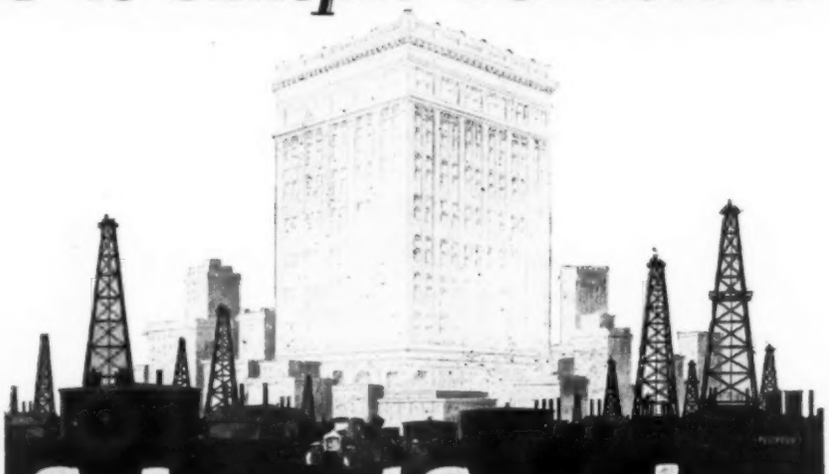
120 Broadway
New York

SALES and SERVICE

WESTCOTT & GREIS INC. W&G MEASUREMENT & CONTROL

Nearly a Qu

of SALES and Service has reduc to a simple formula:



Sales and Service

THE PETROLEUM APPLIANCE CO. (THE MASTER MIXER HEAD)
CROSBY STEAM GAUGES AND VALVES
LIQUID SAFETY VALVES and companion line of safety tank equipment.
WESTCOTT ORIFICE METERS.
METRIC IRONCASE METERS.
DAVIS SUPERSENSITIVE RELIEF VALVE AND CASING HEAD REGULATORS.

CHAPLIN-FULTON high and low pressure regulators.
MERIAM MANOMETERS and companion line of Meriam Products.
MacDONALD 2Lt. 3 Diaphragm Meters equipped with 4 purging cocks for laboratory and charcoal testing.
BRISTOL'S CHARTS AND RECORDING GAUGES.
KREB'S LEVELING SADDLES.

Westcott & Greis, Inc.
MEASUREMENT AND CONTROL

SALES and SERVICE

WESTCOTT & GREIS INC. W&G MEASUREMENT & CONTROL

arter-Century

ed MEASUREMENT and CONTROL

"Ask Westcott and Greis"

Since 1904 a service has been shaping itself to meet the growing demands of the Oil Industry. For almost twenty-five years, technical questions—plans and problems—relating to Measurement and Control of gases, water, oil and steam in the gas, natural gasoline, refining and producing divisions, have been multiplying and intensifying. During these years Westcott and Greis, Inc., has stepped off each milestone of progress side by side with the Industry.

A staff of able technical advisors, unlimited facilities, ample stocks strategically located, insure those in search of installation counsel or practical methods for meeting their measuring and controlling problems, a speedy and economical service that never fails of results, though the situation to be faced be one without precedent.

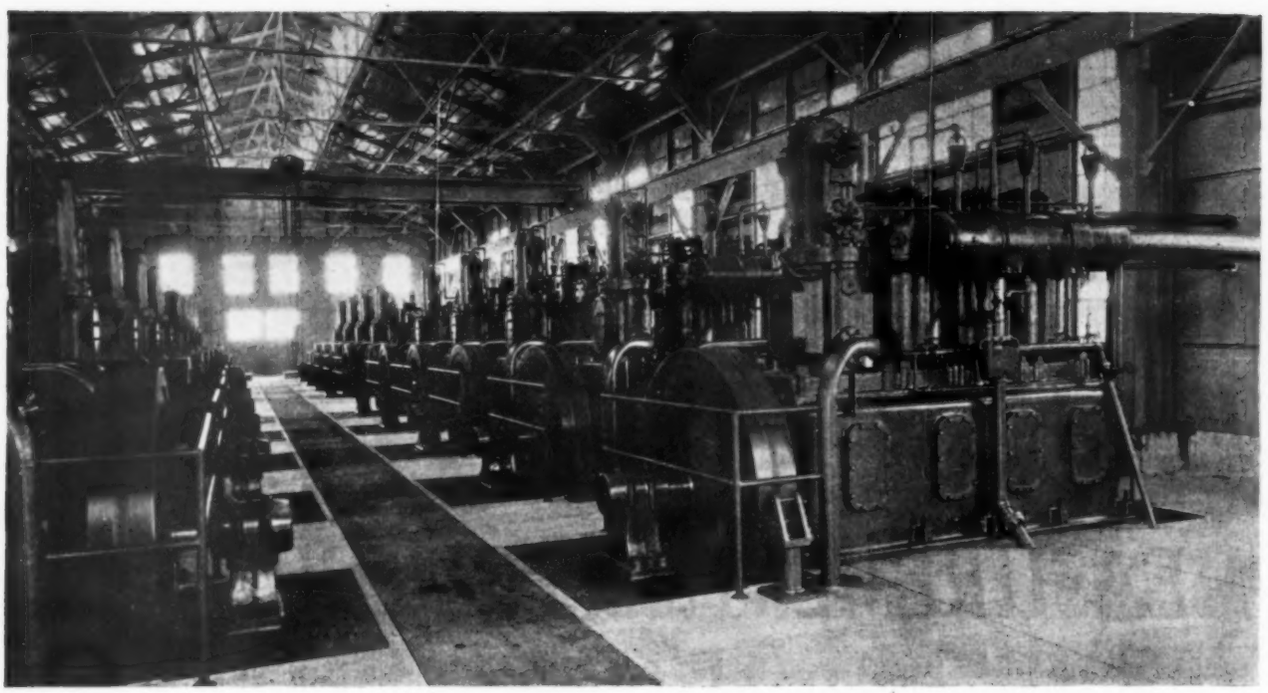
So faultless and dependable has this service become, in the sales and service of the MEASUREMENT AND CONTROL devices listed on the opposite page, that those whose work lies in keeping accurate check and control of steam and liquids, as well as those who are responsible for the economy and production of plant and lease operation, regard Westcott and Greis as a tangible asset in making their work easier and more profitable.

This growing tendency on the part of field and office men to take advantage of Westcott and Greis' quarter-century of experience has established a simple formula which can be applied to your own problems with equal efficacy: "Ask Westcott and Greis."

Dallas — TULSA — Los Angeles

Westcott & Greis, Inc.

MEASUREMENT AND CONTROL



Hope Vertical Compressors in Houston Gulf Gas Company Booster Station at Edna, Texas

Booster Station at Edna, Texas Is Efficient Unit

Pumping equipment on line supplying Houston exceeds rated capacity with low fuel consumption

By A. R. McTEE
Staff Representative

DUE to the fact that the Houston Gulf Gas Company's booster station at Edna, Texas, is the first of its kind in the southwest, much interest has been shown in its performance. This company has been supplying Houston with gas for more than a year, and officials of the organization are responsible for the statement that since its installation, the booster station has constantly exceeded the capacity guaranteed for it by the company furnishing the equipment.

The booster system includes two small stations and one big one. The small stations, one at Refugio and the other at Markham, take gas from low pressure wells and put it into the main line. The big station at Edna, slightly beyond the half-way point between Houston and the source of the gas supply, boosts the gas into Houston.

The engine-compressors were all supplied by the Hope Engineering and Supply Company, Mount Vernon, Ohio.

Since the three stations are identical in the type of equipment used, they differ in size only. This description will largely cover the Edna station.

The plant at Edna is equipped with 24 one-hundred sixty horsepower Hope gas engine-compressors. The engines are of the vertical type, with three single acting, four cycle power cylinders and one compressor cylinder mounted on a common bed plate and operated from a common crank shaft. The power cylinder bore and stroke is 14¼ by 16 inches, and the compressor is seven and one-half by 16.

The compressor is mounted at one end of the main frame and consists of a double-acting single stage cylinder.

Cylinders are of semi-steel with liners cast integrally. Lubrication of the power cylinders and other working parts of the engines is through an enclosed, continuous system. Oil is pumped through the engines in a constant stream and splashes onto the working parts. After each complete cycle the oil is cleaned with a De Laval centrifuge, pumped to storage and used again as needed. Two specially installed pumps handle the lubricant.

The compressor cylinder is lubricated by a force feed mechanical oiler.

The engines are set in concrete foundations five feet deep.

The engines operate on gas, and although no average consumption figures were obtainable, it was stated that fuel requirements for the 24 units are unusually low. The amount of gas burned has never been as much as nine feet per rated horsepower.

Guaranteed capacity of the station by the company furnishing the equipment is 48,000,000 cubic feet of gas at 120 pounds suction pressure and 380 pounds discharge pressure. Numerous checks made during the time the plant has been running have shown that it is actually putting the gas into the line at about 400 pounds, and that there is little deviation from this figure. The most recent check showed approximately 1,000,000 feet more gas being put through than the guarantee, and records show a similar average since the plant was started. Within a short time the amount delivered will be boosted to 55,000,000 feet.

Gas Cooler

The problem of cooling the gas after compression has been met by a special-

The Truth About Mill Seconds

Seven years of faithful performance of the Taubman Supply Corporation has accomplished, not only the success of this worthy Organization, it has also helped reform an important industry serving the Oil and Gas Fraternity.

Since we have added the distribution of new pipe, in line with the TAUBMAN policy, we feel it our duty to overcome any irregular methods we find as we always have in the used pipe.

There is an alarming tonnage of MILL SECONDS being marketed in the Mid-Continent Field by brokers and dealers who, sometimes, represent same to be either a little under-weight or untested new pipe. Mills who dispose of their SECONDS through brokers and dealers do not stencil same to indicate the true condition as to its grade. While there is only approximately ten per cent so-called underweights which would be safe to use for some light purpose, approximately ninety per cent of MILL SECONDS really consist of DEFECTIVE WELDS, BLISTERED, BURNED METAL and other inferior grades, yet the customer is seldom told of its true condition.

Dealers who handle MILL SECONDS purchase same from Mills mostly plain end, as it runs when the Mill determines same as defective, shipping most of this into their yards, sorting and putting collars and threads on same, selling for casing or screw line pipe, the remainder sold for plain end lines.

On January 28th we wrote to every Pipe Manufacturer asking their co-operation by stenciling MILL SECONDS indicating its true condition, which would close the avenue for misrepresentation. Two of the Mills replied they are not selling MILL SECONDS and, upon due investigation, we find their statement true. From two other Mills we received a letter advising they had discontinued the practice of selling MILL SECONDS some time ago. The remainder of the Mills stated, while they were marketing MILL SECONDS without stenciling, they did not know of any method of stenciling such pipe so the stencil could not be removed.

For the purpose of acquainting the Oil and Gas Industry with the true condition of MILL SECONDS, we purchased one carload from a dealer and placed it in our Tulsa yard so we may have it with the rest of our evidence to substantiate our contention.

For further evidence that MILL SECONDS cannot be successfully marketed without misrepresentation, why do the Mills who sell SECONDS dispose of same through brokers and dealers rather than through their regular Distributors and Supply Houses?

Remember—when you buy MILL SECONDS, you encourage carelessness of manufacture and inspection of pipe.

If your job does not require heavy pipe, you can purchase No. 1 grade, light weight pipe from regular Mill Distributors at practically the same cost you pay for MILL SECONDS which will not only insure you satisfactory service and a great saving in construction and maintenance, but also a 100 per cent salvage.

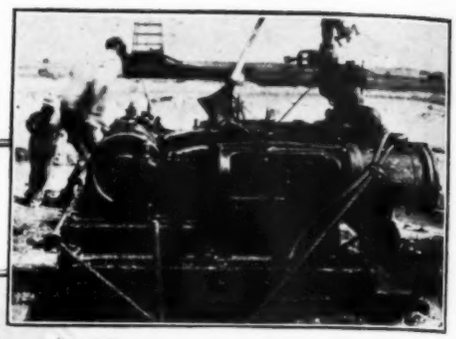
The sooner you acquaint yourself with the true condition of MILL SECONDS and DOPED USED PIPE, the sooner you will clear the way for safe purchasing.

TAUBMAN SUPPLY CORPORATION

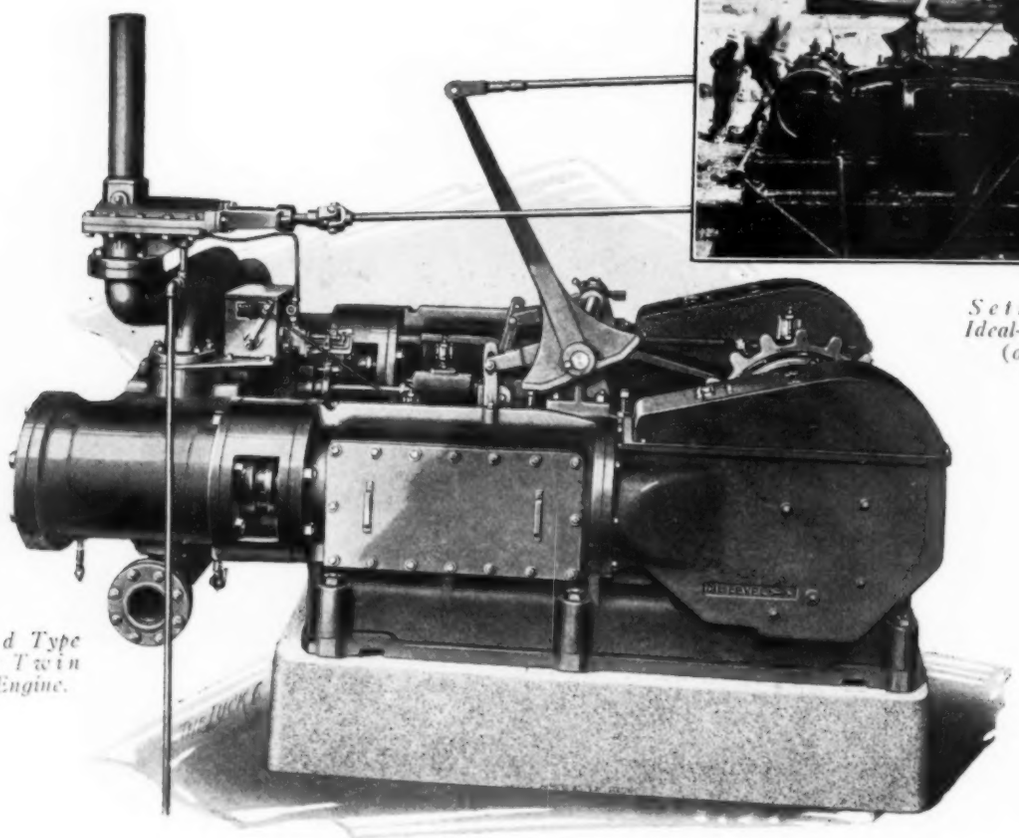
General Offices: Midco Building
TULSA, OKLAHOMA
District Sales Offices: Dallas and Houston

BRANCHES:
EL DORADO, KANSAS — SEMINOLE, OKLAHOMA — PANHANDLE and PHILLIPS, TEXAS

Worth its Purchase Price



Setting up an Ideal-Ajax Engine (open type.)



Enclosed Type Ideal-Ajax Twin Drilling Engine.

AJAX Snap Shots

Well drilled by the first enclosed type, single cylinder Ajax. The crew, Frank Henthorn, Contractor, Evert Henthorn, Frank Peppy, Jim Dempsy, Vern Moss, Frank Ulin.

AJAX DRILLING

Say you saw it in The OIL WEEKLY

....Ten Years Later....

AJAX ENGINES

IT is not unlikely that its performance in the first well you drill with it will justify the cost of an Ajax Single Cylinder or an Ideal Twin Drilling Engine, but such a possibility does not enter into our calculations in building it. We aim to produce an engine that will give the same remarkable performance its tenth year as on its first job. From your own experience you know that this principle in manufacturing has been more than justified by the success of the Ajax Engine.

Made by

AJAX IRON WORKS

CORRY, PA.

Distributed by

DISTRIBUTED BY
THE NATIONAL SUPPLY COMPANIES

In every oil field

STEAM ENGINES

Say you saw it in The OIL WEEKLY

ly constructed cooler. This consists of a series of coils set under screens. There are four such screens in a horizontal plane, through which the water has to pass before it hits the coils containing the gas.

Gas enters the station at 87 degrees and is heated to about 250 degrees in the compressors. By the time it reaches the main line again, the gas has been cooled down to 83 degrees. These figures are taken from records made during the hottest weather last summer. Much higher efficiency was obtained through the winter months.

Water for cooling purposes comes from wells and is handled by Layne and Bowler pumps. Worthington centrifugals put the water through the cooling system for both the gas and the engines.

All auxiliary equipment including the pick-up pumps, air-jammers, etc., is motor-driven. Power is generated in the plant by generators direct connected to two 100 horsepower Hope gas engines.

Scrubbers

Gas from southwest Texas contains much fine sand and presents extreme difficulties in cleaning. The Houston Gulf Gas Company met this problem with home-made scrubbers which were developed through experimentation. These scrubbers were revised and made over until they gave complete satisfaction and they now clean the gas thoroughly. Each foot of gas passes through two scrubbers before it reaches the compressors. In the scrubbers the gas passes through water which takes out the solid matter.

An electric crane is installed at the Edna station to aid in handling equipment.

Foamite fire fighting equipment is installed at all three stations.

Truscon steel buildings are used.

At Refugio there are eight engines, and at Markham there are four.

The company believes it has saved considerable money on account of minimum vibration at all stations, and so far the booster system has operated with economy that is exceeding expectations.

South Texas Industries Use Much Natural Gas

Continued from page 59

ible and expansive. Gas leaks are more difficult to locate, especially small leaks, than is the leak permitting the escape of black fuel oil.

Safety Precautions

When gas is used in furnaces there are certain precautions which are essential to the welfare and safety of the worker. Usually this hazard is minimized at the furnace entrance as much as possible. One particularly commendable practice consists of the installation of double valves on the gas line leading to the burner. The danger lies in the building of gas fires under shut down equipment, still and boiler furnaces. It is certain that the longer a valve on a gas line is in use, the more the seat becomes worn and the more chance there is that the valve will leak. Whenever a furnace at a refinery is taken out of service periodically for the purpose of cleaning the still or boilers, this type of installation should be equipped with relief valves. For example, two valves are placed on the gas inlet line, just in front of the burner itself, and one further back on the inlet line. Between these two valves, which are tightly closed when the furnace is not in operation, there should be placed a small projecting outlet line, say of one inch size and a few inches long. On this small "relief line" there should be a third valve, called the relief valve, and whenever the furnace is not in use, and the two larger valves closed this small relief valve should be wide open and not closed again until the furnace is again ready for firing. In this manner any leaking gas is dissipated into the atmosphere and not permitted to flow into and accumulate in the furnace to flash back or explode when fires are again put under the stills.

Some refiners take the extra precaution of steaming or violently drafting the furnace before fires are built, especially when any welding or similar work must be done on the equipment while the furnace is out of operation.

While the use of natural gas is commendable from a standpoint of conservation of crude petroleum, it is also an important factor in business economy as has been shown in the foregoing discussion. Both pipe line companies serving the Houston area are perfecting the installation of natural gasoline plants for the removal of the gasoline content of that portion of their gas which is gasoline bearing. Most of their source of supply however, consists of the production of so-called dry gas. The Magnolia Gas Company which has supplied the Beaumont-Port Arthur refining and industrial district with gas since late in 1925, is operating a natural gasoline plant at its La-Tex pump station near DeBerry, Texas, where the natural gasoline is extracted from the gas that passes through the main line on its way from Louisiana to the Beaumont-Port Arthur refineries. The gas is "lean" but sufficient gasoline is being recovered to justify the construction and operation of the plant. This practice serves to condition the gas for burning before it reaches its destination—and is also another factor worthy of consideration in accomplishing profitable conservation.

Booster Station, Houston Gulf Gas Company, at Edna, Texas.

Kansas City Firm Puts Branch in Tulsa

Tulsa.—The Progressive Brass Manufacturing Company with headquarters in Kansas City has opened a foundry in Tulsa to meet the increasing demand of the company's business in this territory. N. A. Doolittle, formerly associated with the Oil Country Specialties Manufacturing Company of Coffeyville, Kansas, is general manager of the Tulsa plant and will have supervision over operations.

The foundry which is located at 817 East First street is equipped with all modern facilities for turning out brass and bronze castings and aluminum work and will also carry in stock a complete line of engine brasses and other products including pump valves, clutch pulleys and bar and bushing stocks.

E. J. Thomas of Kansas City is president of the Progressive Brass Manufacturing Company which operates one of the most complete foundries and machine shops in the Middle West. This plant is located at 1711 Cherry Street.

The company not only has built up a large business in the general industrial field but also has an extensive trade throughout the oil country. A. N. Porter is the company's representative in the sales department in Oklahoma and Kansas and C. A. Fisher is the sales representative in the Texas, Louisiana and Arkansas fields.

Houston Company Takes On New Lines

Houston,—Ingram Equipment Company, 1101 Second National Bank Building, announces that it is now the Texas representative for the Industrial Works, Bay City, Michigan, and the Universal Crane Company, Cleveland, Ohio.

In addition to the above new lines of equipment, the Ingram Company handles oil field supplies, iron and steel, and contractor's equipment.

OKLAHOMA CONTRACTING CO.

WELDALINE COMPANY
Pipe Line Welders

513 Thomas Building
DALLAS, TEXAS
Telephone 7-3296 and 7-3297

509 Kennedy Building
TULSA, OKLAHOMA
Telephone 6591

❖ ❖ ❖

PIPE LINE CONTRACTORS

❖ ❖ ❖

T. R. JONES
President

H. A. GUMP
Secretary-Treasurer

C. J. MURRAY
Manager of Welding Company

Natural Gas Is Efficient for Steam Making Furnace

Design and burner efficiency have important bearing upon economical use under industrial boilers

By ISMAR GINSBERG

NATURAL GAS is a very important fuel. It is furthermore a fuel which is in the best condition to be burned. What is meant here is simply this, that a combustible in order to burn and give heat must first be converted into the gaseous condition before combustion can take place. Thus the solid and liquid fuels are converted into the gaseous condition in the furnace, and this means that the furnace acts in part as a generator or producer, a role which it plays with very poor efficiency. For the furnace was never made to convert solid and liquid fuel into gas but simply to burn the fuel and obtain best possible combustion. Natural gas being already in the gaseous condition thus possesses a marked advantage over the solid and liquid fuels.

A little experiment will soon show the truth of this contention and it is so enlightening that time is taken here to describe it. If a piece of paper is wound around in the form of a cylinder and if one end of this cylinder is bent over and thus closed and the other end left open, we will have a sort of paper retort. Right near the end that is left open a small hole is torn into the paper and then the cylinder is held at a slant between the fingers so that the open end is lower than the closed one. Then the paper is ignited at the open end, and the smoke is allowed to pass up the closed cylinder and come out of the opening near the closed end. This smoke can then be made to burn by igniting it with a match, indicating that the substance of the paper is being distilled into gaseous combustible form.

The importance of this little experiment rests in the fact that efficiency cannot be obtained in the burning of solid and liquid fuel, or at least to such a degree, as in the case of the gaseous fuel. Thus natural gas is a fuel which will burn at the highest efficiency, and that is an important consideration in using this fuel for all sorts of purposes.

Now Appreciated

Natural gas is an interesting an important commodity in many ways. In the early days of the natural gas industry, its value was not appreciated, but today and in this country as well as in others where the natural gas production is large, the trouble is not to sell the supplies of gas that are available but to find enough of the product to take care of the demand. Nevertheless, it is always interesting to read of new uses for natural gas and also of improvements and developments in known uses which make for economy.

It is well known that natural gas has the highest thermal value of all the gaseous fuels. We sometimes read of new gas making processes which claim the manufacture of a high thermal value gas, but as a general rule they are found to be of theoretical importance only. It is not possible to get more than a certain thermal value from the distillation of coal and in order to meet the requirements of the public service commissions, the manufactured gas companies are forced to use gas oil to enrich their product. Natural gas generally runs from 1000 to 1100 British thermal units per cubic foot and this represents a thermal value of maximum proportions.

It must be mentioned here that the important probelm in using a gas of so high a thermal value is to use it economically and efficiently. The gas must be completely burned and it is understandable that the greater the concentration of heat units in a fuel, the more care need be exercised in getting all the value that is in the product out of it. It is perhaps true that due to the low price of natural gas sufficient attention has not been paid to this phase of its utilization.

Use Growing

These considerations apply to the industrial as well as to the domestic use of natural gas. A number of industrial uses for natural gas have been proposed and are being exploited today, but we are concerned in this article only with its use as a fuel under the steam boiler. Natural gas has not been used to any great extent for this purpose. There may be various reasons for this. It may be due to the fact that it has been recognized that the construction of the boiler must be different for burning a gaseous instead of a liquid or solid fuel. This is in itself a very important point.

It is a fact that the majority of boilers in locations where natural gas could be used as a fuel are of the standard types, specially designed for the burning of solid and sometimes liquid fuel. The question naturally arises as to just what to do with the old boiler. Shall this boiler be scrapped or can it be fixed so that it will burn the gaseous fuel with a fair degree of efficiency. Experience that has been had in the conversion of coal or oil fired house heating boilers into gas fired apparatus has indicated that this is not the best of all practice, but that it is necessary at times due to the reluctance on the part of the owner to scrap his old furnace and buy a new one. The very same consideration may well apply to the use of natural gas in the industrial steam boiler. The old boiler can be fixed up so that it will give good results with the gaseous fuel but better results would unquestionably be obtained with a new boiler specially designed for the burning of natural gas.

Natural gas is of course not a simple substance but rather a mixture of gases, chiefly methane gas, and its composition will accordingly vary in acordance with the well from which it is obtained. Natural gas contains traces of other hydrocarbons of the methane and other series as well as ntirogen which has no thermal value. The average natural gas contains 99.1 per cent of methane and perhaps 0.2 per cent of oxygen.

Methane Value

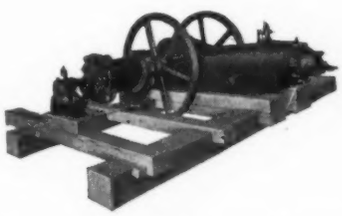
The high thermal value of the gas is due to its high methane content and then again because of this high methane content, which is found in practically all natural gases, it is easy to adjust the burner for this content of methane and not be concerned about complete combustion, even though the composition of the gas might change from one well to the other. This change cannot be of sufficient magnitude to affect the burning conditions. As a general rule about ten times the volume of air is required for burning a unit volume of the gas. Under the proper conditions the flame obtained will be colorless, indicating complete combustion of the gas, and the gases of combustion will then contain just carbon dioxide, water vapor and nitrogen, the latter derived mainly from the combustion air. It is understandable that combustion cannot be complete unless the proper amount of combustion air is present, and if too much air is present combustion will not be of maximum efficiency.

Under these conditions carbon monoxide, carbon itself as well as unburnt

(Continued on page 118)

"$5.00 per 24 hour run"

Capitan No. 1, Roosevelt County, New Mexico, which H. J. Steinberger drilled to 4510 feet with a Franklin Oil Engine at an average cost under $5.00 per 24-hour run, oil being trucked 50 miles.



FRANKLIN OIL DRILLING ENGINE

The Franklin is a single cylinder, three port, two cycle engine. This is Type AO for Mid-Continent or Western Cable Tool Drilling. Price $3700.00. For Eastern Service $2600.00 and $3350.00. Prices F. O. B. Factory. Complete with self-oiling, reversible drilling clutch, circulating pump and fuel tank.

Says Mr. Steinberger

"We have reached a depth of 4510 feet and engine is working better than the best steam engine I have ever used and I have drilled over 500 wells. Fuel and oil consumption is simply marvelous. The clutch has never given a moment's trouble. Have not experienced a single fishing job on well. Easy to start a fresh bit, without letting screw out. I am convinced I could drill to 6000 feet with your engine."

FRANKLIN VALVELESS ENGINE COMPANY
Franklin, Penna.

Oil Well Supply Company
Distribution through its 100 branches

FRANKLIN
VALVELESS ENGINES

United States Daily Average Production

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision;

Month—	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Ark.	Eastern States	Rocky Mountain	California	United States Ave.	Gross
January 1926	449,370	100,130	260,180	90,290	43,990	181,190	101,000	102,300	621,300	1,946,980	60,356,380
February	450,037	101,937	245,989	91,550	45,090	169,676	99,000	98,412	605,250	1,909,637	53,469,836
March	454,762	103,300	260,262	92,712	48,787	164,312	97,625	102,325	604,500	1,929,562	59,816,422
April	467,175	101,825	263,612	88,812	50,562	169,824	100,875	106,675	600,000	1,947,387	58,421,610
May	463,750	105,690	277,700	94,550	58,150	175,430	105,700	112,300	602,720	1,995,990	61,875,690
June	456,450	107,637	302,187	89,912	60,412	167,887	106,250	112,925	606,925	2,013,187	60,395,610
July	456,920	110,320	336,600	114,760	57,460	161,870	104,700	108,520	613,940	2,062,470	63,936,570
August	465,137	111,600	381,550	161,237	56,787	157,375	108,350	110,737	609,725	2,162,662	67,042,522
September	465,387	113,037	402,212	175,512	56,575	154,037	110,125	105,825	598,100	2,180,862	65,425,860
October	497,120	114,720	439,490	170,350	58,200	149,810	109,500	99,060	611,600	2,259,850	70,055,350
November	551,225	115,425	475,987	176,425	56,575	144,100	111,125	93,537	641,325	2,365,475	70,964,250
December	561,012	118,950	483,350	181,263	55,137	139,250	110,375	87,650	659,925	2,396,112	71,279,472
January 1927 . .	591,570	117,490	460,910	176,330	53,030	132,648	108,100	83,910	655,660	2,385,650	73,955,150
February, 1927 ..	683,775	116,200	479,175	154,975	52,850	128,362	107,250	85,237	642,775	2,455,612	69,157,136
March 1927	707,187	115,612	475,375	154,262	51,450	124,662	104,500	87,200	644,350	2,462,625	76,341,375
April 2	724,650	116,150	474,350	157,300	51,800	123,900	104,500	87,950	637,300	2,477,900	.....
April 9	725,100	117,000	474,850	156,750	52,250	122,400	106,000	82,750	641,200	2,478,300	.....
April 16	714,500	113,850	474,250	151,650	52,350	115,500	107,500	83,000	639,900	2,452,500	.....
April 23	721,850	115,650	479,150	159,700	49,850	108,500	109,000	93,400	641,000	2,478,100	.....
April 30	733,000	114,900	482,000	151,700	47,100	104,000	110,500	98,550	658,200	2,499,950	.....
Increase	11,150	.....	2,850	.....	.....	.....	1,500	5,150	17,200	21,850	.....
Decrease	.....	750	.....	8,000	2,750	4,500	.....	.....	.....	.....	.....

TEXAS

(Outside Gulf Coast)

PANHANDLE DISTRICT

	April 30	April 23
Hutchinson County	105,500	103,500
Gray County	9,050	8,250
Carson County	12,700	10,500
Wheeler County	3,500	2,400
Others	50	50
Total	130,800	124,700

NORTH TEXAS

Electra	14,000	14,000
Burkburnett	13,150	13,250
Iowa Park-KMA	3,900	4,000
Archer County	29,550	29,900
Wilbarger	14,050	14,150
Clay County (Petrolia).....	800	800
Baylor County	100	100
Montague and Cooke Cos. ..	14,350	14,550
Totals	89,900	90,750

WEST CENTRAL TEXAS

Stephens County	9,100	9,250
Eastland-Desdemona	6,500	6,600
Brown County	29,500	29,900
Coleman County	1,600	1,600
Callahan County	4,250	4,500
Shackelford County	13,250	13,550
Young County	7,800	7,950
Throckmorton County	3,300	3,500
Jack County	500	500
Palo Pinto County	1,900	1,950
Jones County	2,500	2,600
Mitchell-Scurry Cos.	3,750	3,850
Howard County	2,800	2,250
Reagan County	26,600	26,900
Crane-Upton Counties	64,450	64,150
Crockett County	1,200	1,150
Pecos County	2,500	3,000
Others	2,800	2,800
Totals	184,300	186,000

EAST CENTRAL TEXAS

Mexia	11,000	11,000
Currie	600	600
Richland	900	900
Wortham	3,550	3,650
Nigger Creek	5,650	5,800
Corsicana-Powell	19,100	19,200
Totals	40,800	41,150

SOUTHWEST TEXAS

Luling	17,700	17,900
Lytton Springs	2,100	2,150
Somerset	1,200	1,200
Laredo District	14,550	14,650
Piedras Pintas	50	50
Others	600	600
Totals	36,200	36,550
T'ls Tex (Outside Gulf Coast)	482,000	479,150

TEXAS GULF COAST

West Columbia	9,900	10,250
Damon Mound	950	950
Big Creek	5,250	5,550
Boling	2,250	2,150
Blue Ridge	2,700	2,950
Pierce Junction	7,550	6 850
Humble	3,700	3,750
Goose Creek	9,000	9,550
South Liberty	3,000	3,050
Hull	19,850	20,000
Saratoga	1,150	1,050
Batson	1,500	1,400
Sour Lake	4,750	4,700
Spindle Top	50,700	54,650
Orange County	5,500	5,950
Others	6,250	5,900
Totals	134,000	138,700

OKLAHOMA

North Braman	6,450	6,500
South Braman	3,450	3,450
Blackwell	4,000	3,900
Hubbard	8,050	8,200
Garber	16,100	16,650
Thomas	1,450	1,450
Tonkawa	22,750	23,200
Burbank	42,300	42,500
Osage (outside Burbank) . ..	35,050	35,050
Watchorn	2,500	2,600
Cushing	21,250	21,200
Yale Jennings	11,750	11,800
Davenport.	3,450	3,400
Bristow Slick	27,250	27,250
North Okmulgee	17,250	17,250
Lyons Deaner	4,400	4,400
Stroud	1,500	1,450
Cromwell	12,850	13,250
Papoose	6,750	6,950
Wewoka	21,400	17,850
Healdton	15,000	14,500
Duncan District	7,350	7,200
Earlsboro	53,000	43,600
Graham	7,700	7,700
Fox	1,800	1,800
Seminole	288,850	289,700
Hewitt	10,000	10,000
Scholem Alechem	15,100	15,000
Others	64,250	64,050
Totals	733,000	721,850

CALIFORNIA

Seal Beach	50,000	36,000
Santa Fe Springs	42,500	43,000
Long Beach	93,000	93,500
Huntington Beach	77,000	74,500
Torrance	23,000	23,500
Dominguez	17,500	17,500
Rosecrans	10,500	11,000
Inglewood	37,500	37,000
Midway-Sunset	89,000	89,000
Ventura Avenue	53,800	51,600
Others	164,400	164,400
Totals	658,200	641,000

ARKANSAS

El Dorado	6,000	6,100
Smackover Heavy	79,600	84,250
Stephens	1,400	1,400
Nevada	1,400	1,300
Lisbon	4,250	4,300
Others	100	100
Totals	104,000	108,500

KANSAS

Florence-Covert	1,900	1,900
Peabody-Ebling	3,850	3,850
Eldorado-Towanda	13,250	13,200
Augusta-Fox Bush	4,600	4,550
Rainbow Bend	2,400	2,400
Russell	3,200	3,250
Greenwood County	39,600	40,000
Churchill	16,800	17,500
Others	29,300	29,000
Totals	114,900	115,650

NORTH LOUISIANA

Homer	5,150	5,200
Haynesville	7,750	7,800
Caddo Light	9,950	10,150
Caddo Heavy	3,450	3,350
DeSoto-Red River	4,250	4,400
Elm Grove	600	550
Bellevue	1,550	1,600
Cotton Valley	5,850	6,000
Urania	8,550	10,800
Totals	47,100	49,850

LOUISIANA GULF COAST

Vinton	5,400	5,700
Lockport	7,950	10,500
Evangeline	950	950
Edgerly	900	1,000
Others	2,500	2,850
Totals	17,700	21,000
Totals Gulf Coast	151,700	159,700

MOUNTAIN STATES

WYOMING

Salt Creek	49,100	45,000
Grass Creek	2,650	2,750
Elk Basin	950	700
Big Muddy	2,800	2,750
Lost Soldier	3,600	3,800
Rock River	3,000	2,900
Lane Creek	700	750
Teapot Dome	1,300	1,100
Others	2,650	2,250
Totals	66,750	62,000

MONTANA

Cat Creek	2,350	2,350
Sunburst	12,500	12,500
Others	200	200
Totals	15,050	15,050

COLORADO

Moffats (Craig	1,950	2,100
Fort Collins	3,650	3,400
Florence	800	700
Others	3,250	3,750
Totals	9,650	9,950

NEW MEXICO

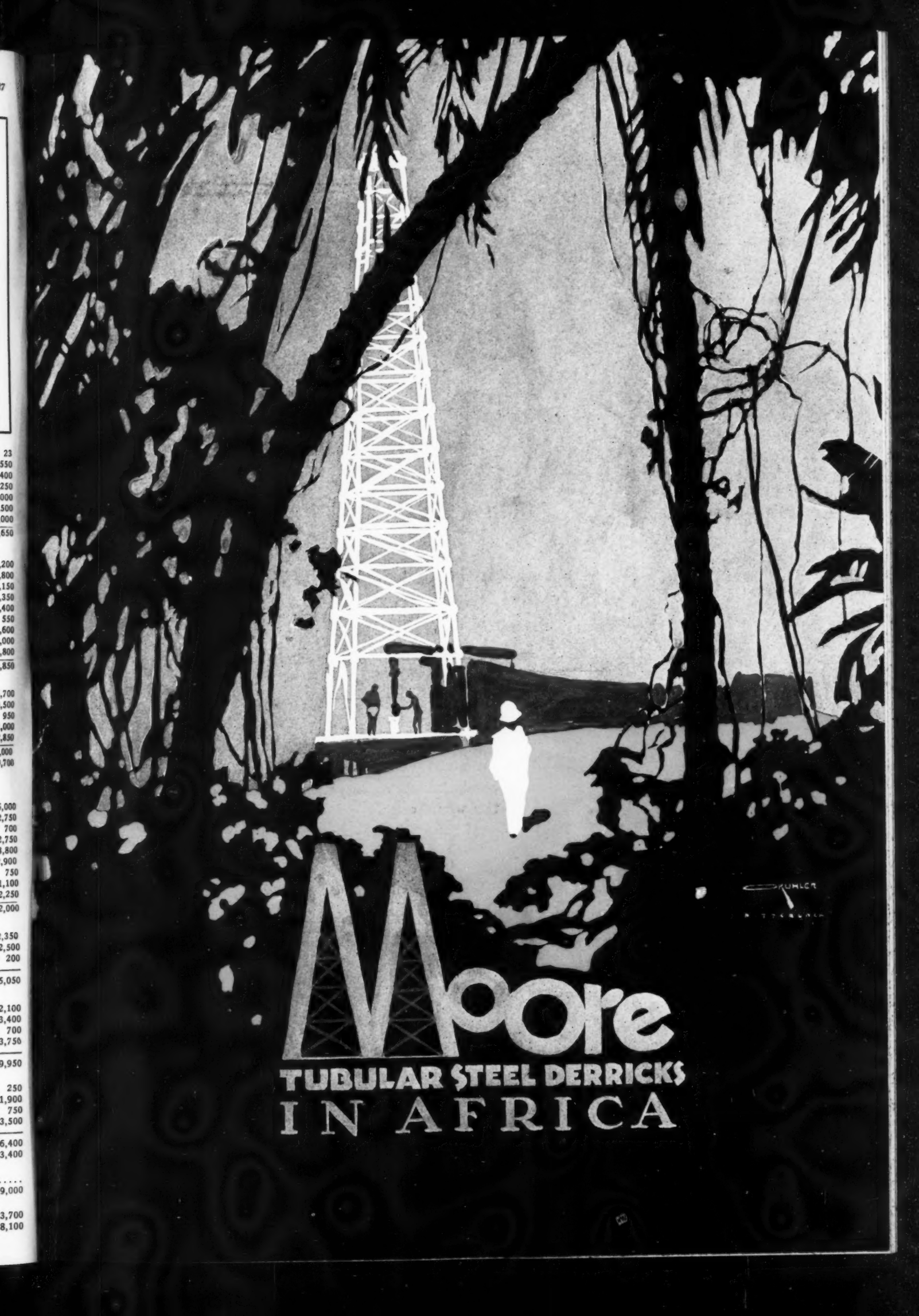
Table Mesa	200	250
Artesia	1,900	1,900
Hogback	750	750
Rattlesnake	4,250	3,500
Totals	7,100	6,400
Totals Mountain States	98,550	93,400

EASTERN STATES

(Including Ill., Ind., Ohio, W..... . Va., Pa., Ky., and N. Y.) .110,500		109,000

PRODUCTION SUMMARY

East of Rockies	1,743,200	1,743,700
United States	2,499,950	2,478,100


Moore
TUBULAR STEEL DERRICKS
IN AFRICA

WORLD WIDE SERVICE FOR TWENTY YEARS

IN AFRICA ~

Where the blazing sun beats the earth with relentless heat and the jungle throws its entangling barrier in the path of man's advance, Moore Tubular Steel Derricks are playing an important part in the quest for oil.

When sweating black men substitute for the locomotive and obscure byways serve for roadbed, light-weight tubular construction, with ease and simplicity of erection, make Moore derricks well-nigh indispensable. For twenty years, under all conditions, they have served, unfailingly, the world over.

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LEE C. MOORE & COMPANY, INC. PITTSBURGH · TULSA

Established 1907

Dallas, Texas **Houston, Texas** **Wichita Falls, Texas** **Isom, Texas** **Parkersburg, W. Va.**
Casper, Wyo. **Shreveport, La.** **El Dorado, Kan.** **El Dorado, Ark.**

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

EASTERN STATES

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
Washington County—		
Dallmer & Co., Sleeth Hrs 1,	¶2	....
Rankin Hrs 2,	¶1	....
Philadelphia Gas Co., Russell 2	¶1	....
Hickory Penn Oil Co., Ewing Hrs 1	¶1½	....
Mckinney & Co., Miller Bros. 1	¶2	....
Beaver County—		
J. L. Abrams & Co., W. M. Imbrie 1	¶¼	....
H. Dawson & Co., H. C. Dawson 1	2	....
G L. Dawson & Co., Dawson 4	·2	....
Greene County—		
Moore-Tex Dil Co., Lemley 1	¶2	....
Carnegie Nat Gas Co., Breeze 1	*	....
C. T. Sutton & Co., Phillips 1	*	....
Clarion County—		
Apollo Gas Co., E. T. Truitt 1	¶20	....

WEST VIRGINIA

Boone County—		
Pure Oil Co., Williamson Coal Co.,	231 35	....
Godfrey L. Cabot, C & L Co., 1,	¶1½	....
E. M. Arbogast 2	¶2	....
United Fuel Gas Co., Horse Cr. tr 1	¶2	....
Owens Bottle Mach Co., Anderson 2	¶2	....
Roane County—		
United Fuel Gas Co., A. Lewis 3	¶½	....
South Penn Oil Co., O. D. Stockley 54	40	....
Godfrey L. Cabot, Runyon 1,	*	....
Heck Oil Co., J. W. Conley 5	10	....
Ritchie County—		
Southern Oil Co., A. E. Ryan 8	5	....
J. F. Deem & Co., Tingler 2	¶½	....
P. A. & A. P. Mellon, Kearnes 2	¶½	....
Monongalia County—		
South Penn Oil Co., Tennent 5	¶¼	....
Manufacturers L & H Co., Delaney 2	¶2	....
D. W. Null, Dawson Heirs 1	*	....
Wood County—		
C. S. Reed & Co., Reed 3	2	....
F. G Mixer & Co., Dowling 2	*	....
Hope Cons. & Refgr. Co., Roberts Hrs. 1	*	....
Kanawha County—		
United Carbon Co., Kennedy 7	15	....
Va. Gasoline & Oil Co., Brown 17	35	....
Tyler County—		
J. H. Penz, Kyle Heirs 1	5	....
Dr. G. T. Gale & Co., Thistle 13	2	....
Pleasants County—		
L. P. Bickel & Son, Hammett 4	5	....
Samuels & Gale, Gale Hrs. 15	3	....
Harrison County—		
Clarksburg L & H Co., S. D. Coe 225	¶2	....
Wetzel County—		
Cameron Oil & Gas Co., Herman 1	¶1	....
Upshur County—		
Taylor & Cavender, E. W. McCue 1	¶¼	....
Lincoln County—		
Huntington Dev. Co., Porter 293	¶1	....
Marion County—		
S. N. Elliott, L. R. Metz 2	*	....

KENTUCKY

Ohio County—		
James C. Ellis, Weller 10	175	631
Rex-Pyramid Oil Co., Lake 1	80	629
White Plains O & G Co., Kelly 1	15	491
Miller & Dameron, A. Mickey 1	*	900
Barren County—		
Sanson-Norris Co., Browning 1	30	446
Norris Bros. & Davis, Johnson 1	*	....
Ziegler & Co., Darter 8	12	429
V. Taylor, Hunt, Mitchell & Co. 5	20	....
Hunt, Mitchell & Co. 6	15	....
Hunt, Mitchell & Co. 7	15	....
Hunt, Mitchell & Co. 8	20	....
Warren County—		
Wood Oil Co., Davenport 31	20	455
Onsel-Hanrahan Oil Co., Davenport 15	25	1051
Garland R. Sledge, McClain 5	3	550
Allen County—		
Riley Hunt, 6	1	310
Daviess County—		
Leeper Oil Co., Conders 1	*	....
Bert Thompson & Co., Pulliam 1	*	....

SUMMARIZED REVIEW OF FIELD RESULTS

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	6	11	5	3	..	..	1	8	1,660	140
California	18	13	15	13	..	..	3	..	10,560	7,575
Colorado	..	1	..	..	..	..	..	..	....	....
Indiana	3	7	2	2	..	..	1	5	50	50
Illinois	..	1	..	1	..	..	..	..	....	2
Kansas	20	29	7	17	1	1	12	11	2,185	3,485
Kentucky	17	21	13	16	..	..	4	5	431	516
Louisiana	23	20	10	4	2	6	11	10	1,004	2,425
Michigan	4	4	4	4	..	..	..	..	75	100
Mississippi	..	..	..	..	..	..	..	..	....	....
Montana	6	6	6	5	..	..	..	1	475	1,050
New York	..	1	..	6	1	..	..	..	....	12
New Mexico	..	..	..	..	..	..	..	..	....	....
Ohio	31	25	10	21	10	..	11	4	254	1,015
Oklahoma	86	79	39	48	10	7	37	24	22,938	32,542
Pennsylvania	12	50	2	43	8	4	2	8	4	247
Tennessee	4	2	4	2	..	..	..	..	670	310
Texas	152	152	86	94	2	15	64	43	31,042	37,964
West Virginia	29	17	11	4	13	10	5	3	157	465
Wyoming	3	4	1	4	..	..	2	..	40	4,762
Totals	414	449	215	287	46	44	153	118	71,565	92,661
Increase This Week	....	..	..	..	2	..	35	..	....	....
Decrease This Week	35	..	72	..	..	..	..	..	21,096	....

TENNESSEE

Company, Well and Location	Initial Production Bbls.	Depth
Clay County—		
Moorman & Herndon, Arms 2	200	275
H. H. Howard, Langford 1	200	....
J. L. Miller & Co., Keslinger 2	20	....
Jackson County—		
Celina Oil Co., Hawkins 2	250	271

SOUTHEASTERN OHIO

Washington County—		
Joe Kiggins, Greene 1	¶¼	....
Liebrand 1	¶½	....
Crippen & Co., Mahoney & Bowman 1	2	....
McTaggert & Co., E. & D. Shaw 1	¶¼	1814
W. E. Stephens 7	*	....
Huntsman & Co., Romeis-Erbes 6	*	....
Daily & Co., Harris 1	*	....
Orndorff & Co., J. & A. Pettitt 1	¶½	....
Morgan County—		
Ohio Fuel Sup Co., T. Kenney 1	*	....

CENTRAL OHIO

Cuyahoga County—		
Hulse & Kundtz, G. L. Cooley 1	*	....
M. Lippers 1	¶¼	....
Arthur & Simpson, C. L. Harrison 1	¶2¼	....
J. Gregory 1	¶1	....
H. Martin 1	*	....
Logan Gas Co., Rutherford 1	*	....
McGrath & Co., Cheskie 1	¶¼	....
Licking County—		
Mead & Co., H. C. Gault 1	80	....
Hope Const. & Refg. Co., Jones 1	46	....
J. H. Sole & Co., Wm. Coomes 3	100	....
Ark. Fuel Oil Co., Garrett 1	7	....
North Fork Oil Co., Koontz 1	*	....
Coshocton County—		
Empire G & F Co., R.H.McKelvey 2	*	....
Leonard O & G Co., Young 1	*	....
East Ohio Gas Co., Humphries 1	¶1½	....
Athens County—		
E. A. Sweeney & Co., Swartz 2	¶½	....
Cook & Co., C. P. Riley 1	2	....
Home Oil Co., Childrens Home 4	2	....
Hocking County—		
Preston Oil Co., Marks 1	115	....
Medina County—		
Empire G & F Co., Puchhas 2	¶¼	....
Ashland County—		
Logan Gas Co., W. J. Havinot 1	¶½	....
Knox County—		
Upham Gas Co., J. J. Workman 1	¶1	....
Lorrain County—		
Wiser Oil Co., Howard 1	*	....

INDIANA

Pike County—		
Wiser Oil Co., Wilson 2	30	1351
A. B. Bement, Catt 2	20	1343
Charles Blosser & Co., Wilson 2	*	1161

MICHIGAN

Company, Well and Location	Initial Production Bbls.	Depth
Saginaw County—		
Atlas Oil Co., Palmer 1	20	1822
Fordney Pet. Co., George Baer 1	20	1833
Saginaw Prosp. Co., Brechtelbauer 2	20	1828
W. Virginia Oil & Gas Co., Bennett-Fisher 1	15	1823

KANSAS

Butler County—		
Empire G & F Co., Enyart 83, se nw nw 12-26-4e	75	1673
James et al, Harmon "A" 4, sw nw se se 24-26-4e	10	2680
Johnson et al, Beedles 1, se sw 4-27-6e	50	3158
Cowley County—		
Texas, Eastman 14, sw nw ne 6-31-6e	25	2869
J. A. Hull, School Land 5, ne se nw 15-32-4e	1000	3274
Pattee, Tyrell et al, City of Winfield 1, se ne nw 22-32-4e	¶4½	2302
Leighty et al, Beinhorn 1, sw ne 17-32-4e	*	3357
McNabb & Sidwell, Mitishler 1, sw 33-32-4e	*	3557
Elk County—		
Elmwood, Miller 1, sw 14-30-10e	*	2345
Greenwood County—		
Stark et al, McMullen sw 21-23-12e	*	1951
Empire, Kepfer 17, se 11-22-11e	25	1851
Marion County—		
Phillipa, Razineck 1, nw sw 22-7-4e	1000	2418
Cross, Frank et al, Harke 1,ne 2-18-4e	*	....
Lyon County—		
Gasche & Balliere, Scott 1, nw 32-20-17e	*	1915
Reno County—		
Sheldon et al, Magnuson 1, sw ne se 10-23-4w	*	4090
Russell County—		
Wilcox, Munsell 2, sw ne 17-12-15w	*	3656
Keys Pet., Dortland 1,nw ne 8-14-15w	*	3057
Wilson County—		
Allison & Fitzwilliams, Daniels 1, sw nw 3-27-14e	*	1395

CALIFORNIA

Ventura Avenue—		
Associated Oil Co., Lloyd 45	1575	5862
Bolsa Chica Oil Co., Hartman 2	2200	6602
Shell Co., Gosnell 12	521	6183
South Mountain—		
California Pet. Corp., Willard 21	450	3577
Kern Front—		
Geo. F. Getty, Tegeler 22	150	2269
Wonder Co., No. 1	240	2036
Goleta—		
Miley Oil Co., Goleta 4	530	1456

MOUNTAIN STATES

WYOMING

Company, Well and Location	Initial Production Bbls.	Depth
Black Mountain—		
Union Oil Co., as, 34-43-91, ...	*	4400
La Barge—		
Reese Oil Co., 1, ne 27-27-113, ...	40	1290
Aiken-Butte Oil Co., 1, se 22-27-113,..	*	850

MONTANA

Kevin-Sunburst—		
Cal. Pet. Co., 9L, se 28-35-2	100	1475
Homestake Oil Co., 24, ne 36-35-2 ..	125	1428
Arcus-Cal. Oil Co., 4, sw 19-35-1 ..	50	1500
Hill-O'neil Oil Co., 6, se 28-35-2 ..	100	1475
Hatch-Malan, 1, sw 20-35-1	35	1480
Diamond Oil Co., 11, nw 33-35-2 ..	65	1470

ARKANSAS

Nevada County—		
Martin et al, Haynie 1, 6-14-20	50	1160
Ouachita County—		
W. R. Keever, Hicks 1, 27-15-16, ..	15	2050
Union County—		
Hollyfield et al, Murphy 2, 9-16-15 ..	45	2757
O. G. Murphy, T. C. Murphy 6, 9-16-15	50	2340
Stewart et al, Murphy 8, 9-16-15 ..1500		2788

LOUISIANA

Bossier Parish—		
Gulf, Hodges 6, 24-16-12	¶1	1870
Caddo Parish—		
Gulf' Ferry Lake 267, 28-20-16	52	2246
Ohio, Murray 3, 28-21-15	10	1606
Standard, Trosper 1, 34-18-16	¶12	2720
Stiles 181, 33-21-16	100	1840
Victor Wenzles, Hunsicker 4, 15-20-15	100	2218
Red River Parish—		
Gulf, Robinson 37, 25-13-11	82	2561
Sabine Parish—		
Ark. Fuel Co., Logan 3, 33-10-12 ..	415	3212
Logan 4, 33-10-12	110	3265
Logan 5, 28-10-12	50	3224

SOUTH LOUISIANA

Vinton—		
Texas Co., Vincent 18	75	2450
Vinton Pet. Co., Rescue 13, acres 6	10	2400
Evangeline—		
Texas Co., Latreille 103, wo	*	2100
Abshiere Bolyard Oil Co., S. F. S. 4	*	1975
Mentan Oil Co., Pierce 2	*	1000
Port City Oil Co., S. F. S. 2, wo..	*	3000

TEXAS

GULF COAST

Spindle Top—		
Gulf, Oakwood Realty 9	*	5050
Oakwood Realty 10 3750		5010
Atlantic, McLean 10	*	4150
McLean 11	*	5150
Hines Oil Co., Parker 2	*	4300
Sun Co., McLean 4, wo	*	5100
Rio Bravo, T. & N. O. 101	*	4000
Spindle Top Western, Banks 1, wo	*	3400
Magnolia, Fee 4 2880		5000
Batson—		
Kirby-Capitol, Hodges 7 3000		3250
East Batson Oil Co., Counzelman 8	*	1200
Deutser Oil Co., Colorado and Batson Syndicate 1	*	1300
Goose Creek—		
Gulf Coast Oil Corp., Gaillard 16, wo	100	2850
Sour Lake—		
Humphrey, Gerscke 1	*	4100
Hull—		
Gulf, Phoenix Dev. 84 150		3100
64, wo 2000		3350
W. L. Thomas, Fee 11 92		2675
Blue Ridge—		
Gulf, Bassett Blakely 15	50	3100
Pierce Junction—		
Marland, Prudential Inv. 4 2000		4650
W. F. Martin et al, Settegast 1 ...	15	3450
Big Creek—		
Texas Company, Fee 3 666		4150
South Liberty—		
Gulf, R. G. Palmer 1	30	3750
Archer County—		
Barnsdall Oil Co., Haley 1	*	2000
Boller et al, Farmer 1, ...	*	1361
Big Lake—		
Big Lake Oil Co., University 72-A..	240	2920
Brown County—		
Burton et al, Jones 1	*	325
Empire Gas & Fuel Co., Newton 2..	*	1490
Florence Oil Co., Newton 4	10	1295
Gibson Oil Corp., White 1	*	1770
J. K. Hughes Dev. Co., Shore 8 ..1500		1312
May-Ward et al, Byler 1	*	1310
Jas. A. McKanna et al, Shore 3 ..	230	1336
Shore 6	540	1330
Pandem Oil Corp. Turner 1	*	1770
Phillips Pet. Co., Hickman 5	100	1238
Root et al, Pugh 3	15	1335
Simms Oil Co., Gaines 1	*	1505
Sorrells et al, Cross 1,.....	*	1631
The Texas Co., Byler 1	90	1298
Hickman 18	*	1253
R. M. Lowe 34	325	1302
R. M. Lowe 41	710	1314
Wentx Oil Corp., Shore 12	40	1310
Shore 13	165	1335
R. A. Westbrook et al, Turner 1	*	1510
F. P. Zoch-McCamey et al,Starkey 1,	*	1500
Burkburnett—		
R. R. Clark et al, Honaker 2	*	1900
Callahan County—		
Deep Rock Oil Co., Gorsuch 1....	*	2100
Prairie O & G Co., Baum 2, ...	10	2050
Shadbolt & Creighton, Alvord 1	*	1203
T. G. Shaw et al, Miller 3, ...	*	1650
Carson County—		
Champlin Ref. Co. et al, Bryan 6 ..	200	3245
McMan O & G Co., Bryan 6	180	3250
F. E. Percival 2, ...	600	3180
Prairie, J. W. McConnell 4-A 2600		3145
White Deer Oil Co., Garner 2	80	3135
Clay County—		
Empire Holding Corp., Barry Jr. 3	13	797
Lone Star Gas Co., Lochridge 6 ..	*	1770
Coleman County—		
Brown & Co., Powell 1	*	1378
Browning et al, Bowden 1	*	1259
Gracey Bros. et al, Newsome 1	*	2080
Jewell & Sill, Pfluger 1	*	2123
Shields et al, Nance 1	*	1505
Urban et al, Tate 1	*	2515
Cooke County—		
American Ref Co., J. A. Dennis 14	20	1278
Fain-McGaha Oil Corp., Chaffin 1 ..	40	994
Shasta Oil Co., Hair 1	*	1801
Crane County—		
Gulf Prod. Co., J. T. McElroy 9 ..1100		2794
J. T. McElroy 1-B	145	2996
University-Lassiter 3	150	3079
Humble O&R Co., University 6 ..1500		2900
University 8	450	2975
Eastland County—		
Burke-Greis et al, Jeffreys 1	*	3543
Electra—		
C. H. Clark et al, Waggoner 3	*	2165
Magnolia Pet. Co., Piper 11	*	2135
The Texas Co., Marriott 33	35	1944
Gray County—		
M. M. Travis et al, J. D. Black 1 ..1500		2845
Howard County—		
Humble O&R Co., Douthitt 3	*	1755
Marland Oil Co., Chalk 7-A	60	1571
Chalk 8-A	75	1782
H. R. Clay 4	100	1784
H. R. Clay 5-A	100	1811
Reeves-Apperman et al, Clay 2	125	1807
Tidal Oil Co., Chalk 1	50	1585
Hutchinson County—		
Cockrell-McElroy Oil Co., Smith 6	500	2983
Dixon Creek Oil Co., Cockrell 1..	360	3012
Goldelline Oil Corp., Whittenburg 3-A	250	2943
Gulf-Cline & Panhandle Ref. Co., Whittenburg 6-E	*	2888
Japhet Prod. Co., Smith 7	400	2816
Kistler Oil Co., Johnson 4	235	2918
Phillips Pet. Co., Perkins-Martin 14	300	2979
Prairie-Phillips et. Co., Johnson 42-A	170	2993
Johnson 51-A	230	3038
Johnson 62-A	50	2978
White Eagle O & R Co., Johnson-Montgomery 3	600	2936
K-M-A & Iowa Park—		
Cooper-McLaughlin, Love 6	*	208
Montague County—		
Cato Oil Co., Rolls 14	25	819
Flemming & Kimbell, J. W. Maddox 1¶21¾		900
Superior Oil & Prod. Co., Easley 1	*	2005
Mexia—		
Magnolia Pet. Co., Thompson 14-B..	250	3205
Shackelford County—		
Hoffer Oil Corp. et al, Broyles 6..	50	535
Magnolia Pet. Co., Dyer 1	*	1100
Roeser-Pendleton et al,Moberly 7-B..	*	1255
Scott 1, (Sec. 172)	*	1200
Simmons et al, Harvey 2	115	1711
South Vernon District—		
Atlantic Oil Prod. Co., Wilbarger Fee 1	60	1488
Seigler-Waggoner 5	160	2712
Fain-McGaha-Murchison & Roxana, Fluhman 8	70	1494
Fain-McGaha Oil Corp.,Waggoner 1-G	*	2404
Waggoner 1-F	20	1989
Phillips Pet. Co., Waggoner 1-O ..	100	2390
Waggoner Ref. Co., Waggoner 7-A	10	2455
Stephens County—		
Humble O&R Co., Glenn 5.....¶½&3		3336
Mid-Kansas O&G Co., Hill 20	10	3231
Lyman et al, Bradshaw 1	*	2220
Upton County—		
Snowden & McSweeney, Hughes 1 ..	290	2332
Wheeler County—		
The Texas Co., Noah Smith 2	30	2412
Young County—		
Bridwell-Heydrick, Groves 1	*	1050
Moran et al, Stewart 4	110	795
Reed et al, Jack 5-B	30	560
Jack 1-C	125	540
Sun Oil Co. & TP Coal & Oil Co., Donnell 5	140	3351

OKLAHOMA

Caddo County—		
Belle Hedlund, Fee 1, se ne ne 11-5n-9w	30	2423
Magnolia, Lacky 5, ne se nw nw 11-5n-9w	10	2492
Carter County—		
Humble, Calvery 4, se sw sw 2- 2s-3w	300	3355
Magnolia, Arch Carpenter 3, ne nw ne 3-2s-3w	*	3013
Creek County—		
Magnolia, Fulkerson 2, nw se sw 32-18-7e	15	2265
Murray Farres 1, ne sw se 36-17-8e	20	2777
T. B. Jones, Jones 5, se ne sw 32-14-10e	175	3386
Atlantic Oil Pro. Co., Bear 5, nw ne nw 16-14-10e	35	3241
Carter, Harris 2, sw ne 12-17-10e ..	170	2424
Margay, Wilcox 1, se sw sw 1-17-10e	520	2530
Commercial Drilling Co., Townlot 1, Lot 8, Block 15, se sw ne ne 6-18 12e	145	2247
Savoy, Townlot 1, 1-24, b 28, nw sw nw 5-18-12e	75	2216
Townlot, 1-25 b 2, nw sw nw 5-18-12e	150	2202
Misener et al, Black 14, ne se 17-17-11e	*	3035
Curtis et al, Eprill 1, nw ne 26-16-10e	*	3119
E. P. Harwell, Harris 1, nw se 12-17-10e	*	2891
Transcontinental, 1, nw ne se 9-17-10e	*	3235
Garvin County—		
Magnolia, Cowan 26, se nw 15-1n-3w¶1½		1490
Grady County—		
Gypsy, Kayser 4, nw se sw 16-3n-5w	250	1755
Carter, C. Costello, 1, se 21-3n-5w ..	18	2117

A.P.I. Specification TUBING

Byers tubing, both plain and upset, in all sizes, is now furnished to A. P. I. Specifications. This includes the specified dimension for pipe as well as couplings and threads. The advantages of A. P. I. specification tubing are too well recognized to need further comment here.

Make This Test

Before you buy tubing again, consider the corrosive conditions prevailing in the locations where it is likely to be used. If ordinary tubing does not give the desired life in service, try a few strings of Byers—made of genuine old-fashioned wrought iron, long recognized for its superior rust resistance. Then compare its life with that of cheaper tubing. Let the service records decide the issue! It will mean substantial savings to you, for you will find the extra life of Byers pipe compensates you many times over for its extra first cost.

DISTRIBUTORS:
Jarecki Mfg. Co.
Oil Well Supply Co.
Norvell-Wilder
Hardware Co.

A. M. Byers Company
Established 1864 Pittsburgh, Pa.

BYERS PIPE

GENUINE WROUGHT IRON

Say you saw it in The OIL WEEKLY

Company, Well and Location	Initial Production Bbls.	Depth
Comanche County—		
Westheimer & Daube, Watson 3, ne 24-2n-10w	*	....
Garfield County—		
Penders, Bowers 1, nw 9-21-3w	*	2300
Penders, C in 2, ne se se 5-21-3w	*	3080
Sinclair, W. Windler 11, sw sw 30-22n-3w	*	3010
Frank Frantz, Montgomery 1, se sw 2-21-7w	*	3400
Sinclair, East Kisner 15, nw sw nw ne 19-22-3w	*	3773
Hughes County—		
Roxana, Powell "B"1, nw ne ne 35-9-9e	*	4045
Transcontinental & Ind. O & G., Harjo 11, se sw 26-9-9e	*	3395
Jefferson County—		
Magnolia, Casey Smith 1, se ne nw 24-7s-6w	¶13	750
Kay County—		
Anderson, Peterson & Smith, Ferguson 1, ne sw 31-27-2e	80	2483
Hag Oil Co., Buessing 3, c n l s ½ n½ ne 20-27-1e	¶½	865
Lincoln County—		
Wilcox, New Kirk 1, ne nw sw 25-14-6e	75	4178
Love County—		
Westheimer, Fee 1, ne nw sw 28-6s-2e	*	4403
Muskogee County—		
D. C. Lampton, T. Carolina 1, ne nw sw 9-15-18e	¶2	768
H. E. Williams et al, R. Manel 7, c e l nw nw 17-15-17e	35	1286
W. J. et al, J. McIntosh 3, csl n½ ne ne 24-14-17e	*	1758
Peterson et al, H. James 6, c n l se se 18-14-17e	*	600
Jolly Ogg, Holden 4, se ne nw 9-14-18e	*	....
Major County—		
Texas Pro. Co., Cheyenne Basin 1 sw 36-22-14w	*	200
Marshall County—		
Galt Brown, Castle 1, se nw nw 35-5s-3e	*	3814
Okfuskee County—		
Champlin, Washington 3, ne se 15-11-11e	135	3549
Okmulgee County—		
J. W. Roberts, B. Carter 2,(Twin) se se 10-15-14w	5	1498
X. Ray, Reed 1-a, nw se se 9-14-14e	¶3	1901
Nowata Oil & Ref., Coleman 1A, sw ne 28-14-11e	*	3195
Penrod & Thompson, Brown 2, nw se ne 1-14-11e	*	3223
Sidwell Drilling Co., Lunsford 3, sw sw 4-14-11e	*	2552
Osage County—		
Barnsdall, No. 5, ne nw nw 2-21-8e	10	2528
Sterling, 10 c w l e½ se 1-22-9e	25	2054
Tidal Osage Oil Co., 6, sw ne se 1-23 8e	700	2423
Phillips, 6, ne sw se 7-27-6e	75	2997
Ray Branstetter, 1 A ne sw nw 26-22-11e	*	1772
Marland, 2, se 27-25-9e	*	73
Pawnee County—		
Devonian, Dodson 4, ne se nw 35-22-6e	15	2673
Ed Rees et al, School Land 1a, nw se 16-21-7e	10	2255
Pittsburgh County—		
Quinton Spelter, Stringer 1, sw nw 21-7-7e	¶4	2555
Pontotoc County—		
Lloyd et al, Starritt 1, se ne 23-4n-7e	¶12	1050
Pottawatomie County—		
Mid Continent, McKinley 1, se ne sw 9-9n-5e	1330	4364
Gypsy, Bora 2, se nw se 16-9-5e	*	2644
Earl 1, ne nw 16-9-5e	*	4321
Strain 1, ne 17-9-5	*	4329
Roxana, Strain 1, se ne 17-9-5e	*	4450
Payne County—		
Magnolia, C. Walker "A", ne sw 8-19-5e	*	3480
Seminole County—		
I. T. I. O., Davis 2, nw sw sw 13-8-6	7910	4229
Walker 3, nw se se 15-8-6e	3640	4060
Magnolia, Lena 3, sw se 10-9-5	150	3518
J. M. Seay 1, se sw sw 12-9-5e	60	3432
Barnsdall, Dan Smith 2, ne 15-9-5	5	3515
Pure Oil, Aldridge 1, nw se nw 3-9-6	2510	4109
Carter, Davis 6, sw ne ne 4-9-6	1175	4355
Vierson 3, sw nw sw 23-9-6	1990	4358
Pure Oil, Strothers "B" 1, nw 36-9-6	480	4185
Searight et al, Epperson 3, se sw ne 33-10-6e	*	4422
Magnolia, Coppage 3, nw sw se 22-7-7e	*	....
Tidal, Sally 1, se nw ne 9-816e	*	4444
Stephens County—		
Magnolia, V. Paune 1, ne se 31-1n-5w	20	1694
Cruce Oil, Frensley 1, se sw ne 12-1n 6w	10	1009
Comanche, Wilson 1, ne nw ne 29-2s 7w	*	1670
Tulsa County—		
Glidden, S. Fife 2, ne se ne sw 15-19-11e	600	2152
C. G. Tibbens, Gregory 1, se sw 14-18-12e	¶2	1042
E. Cornelius, Smith 1A sw se se 7-17-13e	*	2111
Holmes et al, Henry 2, nw se 22-19-10e	*	2017
Chisholm 1, sw ne 20-19-10e	*	2838
McCready Oil & Gas, N. Call 1, c w 1 se sw 14-17-13e	*	1893
Wagoner County—		
W. C. Newman Corp., Bruner 3R, se nw nw 18-17-17e	¶½	1167
G. S. Wilson, Lunnon 1 s, nw ne nw 14-16-16e	¶¾	818

CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
Seal Beach-Alamitos—		
H. J. Barneson, 1	1560	4744
Marland Oil Co., Bixby 7, wo	1285	4750
Huntington Townsite—		
Standard Oil Co., P. E. 7	1423	4300
Athens-Rosecrans—		
Union Oil Co., Trust 4	176	6499
Dominguez—		
Shell Co., Reyes 37	150	4223
Torrance—		
C. C. M. O. Co., Torrance 70	45	3800
Brea-Richfield—		
Herndon-Hunter, 1	250	4155

Second Test on Walden Structure Has Show

Denver, Colo.—Continental Oil Company unexpectedly encountered a good showing of oil in its second test on the Walden structure, section 2-9-79, at 650 feet, indicating that the well is higher on the structure than the discovery well. The first well also had a showing but at 700 feet. The present discovery is being tested for commercial production. The source of the oil is a sandy shale which is found in many parts of the State.

Union Reconstructing Burned Tanks

Los Angeles, Calif.—Union Oil Company is reconstructing two units of its tank farm at San Luis Obispo, California and it is expected that they will be completed by next July.

Rebuilding of the two reservoirs, which were destroyed by fire last year when struck by lightning, is being supervised by the company's engineering forces.

Reconstructed reservoirs will have the most improved types of fire walls and lightning protection as a safeguard against a repetition of the disastrous fire of last year.

Rocky Mountain Wildcat Drilling Curtailed

Casper, Wyo.—For the third year in succession, wildcatting will be curtailed in most sections of the Rocky Mountains. Operations promised to be rather extensive in nearly every region until crude prices were reduced to the lowest levels in three years. Certain sections of the territory will see much action, despite the general conditions prevailing, but this has been brought about more by discoveries in local spots rather than a general tendency toward pioneering. Colorado has been considerably stirred by the discoveries in the Walden and Iles fields, and structures promising to develop something in the sands in which the discoveries were made will be given extensive play. Important completions in the Florence field have been the direct cause of more than a dozen wildcat locations on every side of the old field. Wyoming will not see a widespread activity this year. As in many other regions, there is crude enough in sight for the immediate future and operations will be based accordingly. The only exception is the general interest shown in the southwestern part of the State, where a large semi-proven area is being developed. Montana will see more action than was at first anticipated. Local conditions have an important bearing on matters in this State also. Kevin-Sunburst crude has not been reduced and commands a higher price than the same grades in the Mid-Continent fields. Many promising structures in the northern part of the State will be tested.

Ohio Company to Drill Dry Creek Structure

Billings, Mont.—The Ohio Oil Company has leased several thousand acres of land five miles west of Bridger and will drill a test as soon as the necessary equipment can be assembled. Practically the entire structure was included in the leasing program. The leases lie within Townships 7 and 8 and Ranges 22 and 23 east, and comprise what is known as the Dry Creek structure. The company announces that it hopes to find enough gas at a nominal depth to supply fuel for deeper drilling. A rotary rig and cable tools will be used. It will be possible to use an entire rotary outfit, however.

LaBarge Water Well Flows Gas From 585 Feet

Casper, Wyo.—The Texas Production Company has completed a good gas well from what was intended as a water well in the La Barge field at a depth of 585 feet. The gas flow was so steady that the well will be much more valuable for drilling purposes than as a risk for a permanent water supply. The company intends to drill a large number of shallow wells to determine the geology of the region. A diamond drill will be used for the test wells while a rotary outfit will be employed for a deep test to be drilled later in the year.

Designed by men of long oil field experience . . . *to do the work most efficiently, hence most economically*

B & A QUALITY PRODUCTS

B. & A. Safety Rod Hook

A safety hook that IS safe. The weight of the elevator CLOSES and LOCKS it AUTOMATICALLY. It positively CANNOT OPEN until released by hand pressure on the handle, which is protected from opening from any accidental contact. Nothing to catch in derrick girts. Perfectly balanced and heavy enough for the longest string of rods and light strings of tubing. Enclosed ball bearings.

DA-RO Self-Packing Tubing Ring

A safety feature combined with practical utility. An ideal packing ring for gas wells on which the vacuum is being held. It packs around the tubing and on the casing head top, while the slips carry the tubing. Made from the best quality steel castings and especially hardened slips. Tubing cannot settle nor slip through from pumping vibration. No bolts to tighten. No special packing. So low in price you cannot afford to be without one on each well.

The B & A QUALITY Line

Baker Casing Shoe Co.

Bartlesville Supply Co.

Acme Fishing Tool Co.

Garrott Brass & Machine Co.

Dexter Valve Reseating Machines

Novo Engine Co.

Robinson Orifice Fitting

B. & A. Underslung Rod Elevator

Underslung and balanced, making rod hang straight, preventing kinked rods.

Safety latches, one above the other and acting from opposite sides entirely close opening, making it impossible for rods to twist out if hook does not swivel. Wearing plates dovetailed into body and easily renewed.

Made in any size for any kind of rods. All wearing parts renewable and interchangeable.

B. & A. Tubing Back Pressure Valve

Designed for use when air or residue gas is being pumped into the well through the tubing. Will hold the pressure on the well at all times. Especially constructed valves and seats allow all scale and dirt to pass through. Made for all sizes of tubing.

Write for prices and specifications. A B & A Product will always deliver the goods in a way "old timers" appreciate.

B & A Specialty Company

220 East Brady St. Tel. 3-3282

TULSA, OKLAHOMA

312 Keystone Bldg., Houston, Texas

CRUDE OIL PRICE QUOTATIONS

CURRENT POSTINGS

EASTERN STATES

	May 4 1927
New York Transit	$2.90
Bradford District	2.90
National Transit	2.80
Southwest	2.80
Eureka	2.75
Buckeye	2.60
Macksburg	2.80
Gaines	2.60
Somerset	1.70
Cabell	1.60
Ragland	.95
Corning, 35-cent grade	1.45
Corning, 25-cent grade	1.35
Keister	1.30

CENTRAL STATES

Illinois	1.60
Indiana	1.48
Lima	1.71
Plymouth	1.33
Princeton	1.60
Waterloo	1.18
Wooster	1.77

WESTERN KENTUCKY

Posted by Stoll Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, All grades	1.50

MID-CONTINENT

Prairie, Sinclair, Gulf, Texas

Below 28 (Magnolia only)	1.10
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 to 38.9 gravity	1.32
39 to 39.9 gravity	1.34
40 to 40.9 gravity	1.36
41 to 41.9 gravity	1.38
42 to 42.9 gravity	1.40
43 to 43.9 gravity	1.42
44 to 44.9 gravity	1.44
45 to 45.9 gravity	1.46
46 to 46.9 gravity	1.48
47 to 47.9 gravity	1.50
48 to 48.9 gravity	1.52
49 to 49.9 gravity	1.54
50 to 50.9 gravity	1.56
51 to 51.9 gravity	1.58
52 and above	1.60

Magnolia Petroleum Company

	May 4 1927
Below 33	$ .95
33 to 33.9 gravity	.97
34 to 34.9 gravity	.99
35 to 35.9 gravity	1.01
36 to 36.9 gravity	1.03
37 to 37.9 gravity	1.05
38 to 38.9 gravity	1.07
39 to 39.9 gravity	1.09
40 to 40.9 gravity	1.11
41 to 41.9 gravity	1.13
42 to 42.9 gravity	1.15
43 to 43.9 gravity	1.17
44 to 44.9 gravity	1.19
45 to 45.9 gravity	1.21
46 to 46.9 gravity	1.23
47 to 47.9 gravity	1.25
48 to 48.9 gravity	1.27
49 to 49.9 gravity	1.29
50 to 50.9 gravity	1.31
51 to 51.9 gravity	1.33
52 and above	1.35

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie Moran and Nocona Crude

Humble O. & R. Co.* and Texas Co.

	May 4 1927
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.0 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 to 38.9 gravity	1.32
39 to 39.9 gravity	1.34
40 to 40.9 gravity	1.36
41 to 41.9 gravity	1.38
42 to 42.9 gravity	1.40
43 to 43.9 gravity	1.42
44 to 44.9 gravity	1.44
45 to 45.9 gravity	1.46
46 to 46.9 gravity	1.48
47 to 47.9 gravity	1.50
48 to 48.9 gravity	1.52
49 to 49.9 gravity	1.54
50 to 50.9 gravity	1.56
51 to 51.9 gravity	1.58
52 and above	1.60

Corsicana Heavy, $1.00 per barrel, posted by Magnolia.

*Until further notice, Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes purchased at agravity lower than 28 degrees will be paid for at the posted price for 28 degrees gravity.

SOUTH TEXAS

Mirando	1.00

SOMERSET

Grayburg

Below 33 gravity	$1.05
33 to 33.9 gravity	1.07
34 to 34.9 gravity	1.09
35 to 35.9 gravity	1.11
36 to 36.9 gravity	1.13
37 to 37.9 gravity	1.15
38 and above	1.17

GULF COAST

Grade "A" all companies	1.20
Gulf Coast Light Oil, Below 25	1.15
25 to 25.9 gravity	1.17
26 to 26.9 gravity	1.19
27 to 27.9 gravity	1.21
28 to 28.9 gravity	1.23
29 to 29.9 gravity	1.25
30 to 30.9 gravity	1.27
31 to 31.9 gravity	1.29
32 to 32.9 gravity	1.31
33 to 33.9 gravity	1.33
34 to 34.9 gravity	1.35
35 to 35.9 gravity	1.37
36 to 36.9 gravity	1.39
37 to 37.9 gravity	1.41

(Continued on page 90)

CALIFORNIA CRUDE OIL PRICES AT THE WELL

Following are the current prices offered by Standard Oil Company for crude oil at the well: (Price per barrel of 42 gallons in fields indicated)

Gravity (degrees)	Signal Hill	Seal Beach	Huntington Beach	Inglewood	Olinda-Brea Canon	Athens-Rosecrans Dominguez	Torrance	Richfield	Whittier La Harbra	Montebello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway Sunset Elk Hills	Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge
14-14-9	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75
15-15-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
16-16-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
17-17-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
18-18-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
19-19-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75
20-20-9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	..	..	.77	.77	.77	.76	.76
21-21-9	.86	.86	.86	.86	.86	..	.86	.86	.85	.85	.86	.85	..	.79	.79	.79	.77	.77
22-22-9	.87	.87	.87	.87	.87	..	.87	.87	.85	.85	.87	.85	..	.81	.81	.81	.78	.78
23-23-9	.88	.88	.88	.88	.88	..	.88	.88	..	.85	.88	.85	..	.83	.83	.83	.79	.79
24-24-9	.89	.89	.89	.89	.89	.89	.89	.89	..	.85	.89	.85	..	.85	.85	.85	.80	.80
25-25-9	.90	.90	.90	.90	.90	.90	.90	.90	..	.86	.90	.86	..	.87	.87	.87	.81	.81
26-26-9	.92	.92	.92	.92	.92	.92	.92	.92	..	.87	.91	.87	..	.89	.89	.89	.83	.82
27-27-9	.94	.94	.94	.94	.94	.94	.94	.94	..	.88	.92	.88	..	.91	.91	.91	.85	.83
28-28-9	.96	.96	.96	.96	.96	.96	.96	.96	..	.89	.93	.89	..	.93	.93	.93	.87	..
29-29-9	.98	.98	.98	..	.98	.98	..	.98	..	.90	.94	.91	..	.96	.96	.96	.89	..
30-30-9	1.00	1.00	1.00	..	1.00	1.00	..	1.00	..	.91	.95	.93	..	.99	.99	.99	.91	..
31-31-9	1.03	1.03	1.03	..	..	1.03	..	..	..	..	..	.95	..	1.02	1.02	1.02	.93	..
32-32-9	1.06	1.06	1.06	..	..	1.06	..	..	..	..	..	.97	..	1.05	1.05	1.05	.95	..
33-33-9	..	..	..	..	..	1.09	..	..	..	..	..	.99	..	1.08	1.08	1.08	.97	..
34-34-9	..	..	..	..	..	1.12	..	..	..	..	..	1.01	..	..	..	1.11	.99	..
35-35-9	..	..	..	..	..	1.15	..	..	..	..	..	1.03	..	..	..	..	1.01	..
36-36-9	..	..	..	..	..	1.18	..	..	..	..	..	1.06	..	..	..	..	..	..
37-37-9	..	..	..	..	..	1.21	..	..	..	..	..	1.09	..	..	..	..	..	..
38-38-9	..	..	..	..	..	1.24	..	..	..	..	..	1.12	..	..	..	..	..	..
39-39-9	..	..	..	..	..	1.27	..	..	..	..	..	1.15	..	..	..	..	..	..
40-40-9	..	..	..	..	..	1.30	..	..	..	..	..	..	..	..	..	..	..	..
41-41-9	..	..	..	..	..	1.33	..	..	..	..	..	..	..	..	..	..	..	..
42-42-9	..	..	..	..	..	1.36	..	..	..	..	..	..	..	..	..	..	..	..

This SIGN invites the careful motorist into your station!

THE meaning of this sign is becoming more and more widely known to alert and careful motorists. When they see it on your station they *know* that you are a Dealer who not merely sells oil, but *gives correct lubrication.*

The Dealer who shows this Sign asks the man who drives in for oil—*"What is the mileage on your speedometer?"* Then he consults the Sinclair Recommendation Index and gives the motorist exactly the right grade of Opaline to fit the degree of wear in the car's engine and *seal* its power!

May we tell you about this successful method of selling *correct lubrication* with the full line of Opaline Motor Oils?

SINCLAIR REFINING COMPANY, INC.

Also Makers of Sinclair Gasoline and H-C Gasoline

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

Entire contents copyrighted 1927 by Sinclair Refining Company, Inc.

Authorized Dealer

SINCLAIR OPALINE MOTOR OIL

REG. U. S. PAT. OFF.

Seals Power at every Degree of Wear

	May 4 1927
38 to 38.9 gravity	1.43
39 to 39.9 gravity	1.45
40 and above	1.47

*Humble Oil & Refining Company's postings on Gulf Coast Light stop at 35 to 35.9. Its price on all crudes above 35 is $1.37 per barrel.

Magnolia Petroleum Company's postings stop at 31 to 31.9.

MARKHAM
The Texas Company

All grades	1.00

LULING

All grades	1.00

TEXAS PANHANDLE
Magnolia Petroleum Company

Hutchinson, Carson and Gray counties, all grades	.95

Humble Oil & Refining Company, Gulf Refining Company and Kay County Gas Company

all grades	.95

Gray and Wheeler Counties
Humble Oil & Refining Company

28 to 28.9 gravity	.80
29 to 29.9 gravity	.82
30 to 30.9 gravity	.84
31 to 31.9 gravity	.86
32 to 32.9 gravity	.88
33 to 33.9 gravity	.90
34 to 34.9 gravity	.92
35 to 35.9 gravity	.94
36 to 36.9 gravity	.96
37 to 37.9 gravity	.98
38 to 38.9 gravity	1.00
39 to 39.9 gravity	1.02
40 to 40.9 gravity	1.04
41 to 41.9 gravity	1.06
42 to 42.9 gravity	1.08
43 to 43.9 gravity	1.10
44 and above	1.12

Crane-Upton-Crockett* Counties
Gulf, Humble and Kay County Gas Company

Below 26 gravity	.70
26 to 26.9 gravity	.72
27 to 27.9 gravity	.74
28 to 28.9 gravity	.76
29 to 29.9 gravity	.78
30 to 30.9 gravity	.80
31 to 31.9 gravity	.82
32 to 32.9 gravity	.84
33 to 33.9 gravity	.86
34 to 34.9 gravity	.88
35 to 35.9 gravity	.90
36 and above	.92

*Gulf does not post in Crockett County.

Magnolia Petroleum Company and Kay County Gas Company

Howard County (Chalk Field)	1.43

WYOMING-MONTANA
Wyoming

Byron	1.33
Ferris	1.60
Elk Basin	1.33
Grass Creek	1.33
Rock Creek	1.25
Lost Soldier	.95
Lance Creek	1.33
Mule Creek	1.30
Notches	.65
Big Muddy	1.25
Osage	1.33
Hamilton Dome	.85
Pilot Butte	1.75
Torchlight-Greybull	1.55
Lander	.80
Simpson Ridge	.80
Rex Lake	1.10
South Casper Creek-Poison Spider	1.00

Salt Creek
Midwest Refining Company

29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 and above	1.30

MONTANA

Sunburst	1.35
Cat Creek	1.33
Lake Basin	2.20

	May 4 1927
NEW MEXICO	
Artesia	1.00
Hogback	1.38
CANADIAN CRUDE	
Oil Springs	2.18
Petrolia	2.11

*Bounty on Canadian crude is ¾ cent per gallon, or 26¼ cents per barrel.

LOUISIANA-ARKANSAS
(Standard of Louisiana, Louisiana Oil Refining Company, Gulf Refining Company of Louisiana and The Texas Co.) Homer, Haynesville, Caddo, El Dorado, De Soto and Chrichton.

Below 28 gravity	1.10
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 to 38.9 gravity	1.32
39 to 39.9 gravity	1.34
40 to 40.9 gravity	1.36
41 to 41.9 gravity	1.38
42 to 42.9 gravity	1.40
43 to 43.9 gravity	1.42
44 to 44.9 gravity	1.44
45 to 45.9 gravity	1.46
46 to 46.9 gravity	1.48
47 to 47.9 gravity	1.50
48 to 48.9 gravity	1.52
49 to 49.9 gravity	1.54
50 to 50.9 gravity	1.56

	May 4 1927
51 to 51.9 gravity	1.58
52 and above	1.60

Atlantic Oil Producing Company posts this same schedule on Homer, Haynesville, and West El Dorado.

Magnolia Petroleum Company has the same posting on Pine Island, Haynesville, Eldorado and Bull Bayou.

STEPHENS
(All Companies)

Below 28	1.00
28 to 28.9 gravity	1.02
29 to 29.9 gravity	1.04
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.08
32 and above	1.10

SMACKOVER
(Louisiana Oil Refining Company, Atlantic Oil Producing Company, and Shreveport-Eldorado Pipe Line Company)

Below 24 gravity	$1.00
24 to 27.9 gravity	1.15
28 to 28.9 gravity	1.17
29 to 29.9 gravity	1.19
30 and above	1.21

Other Companies

Below 24 gravity	1.00
24 and above	1.25
Bellevue	1.25
Jennings	1.15
Vinton	1.30
Edgerly	1.30
Starks Dome	1.30
Urania	1.00
Cotton Valley	1.00
Calion	1.00

RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF COAST PORTS
(American Petroleum Institute Figures. Barrels of 42 gallons)

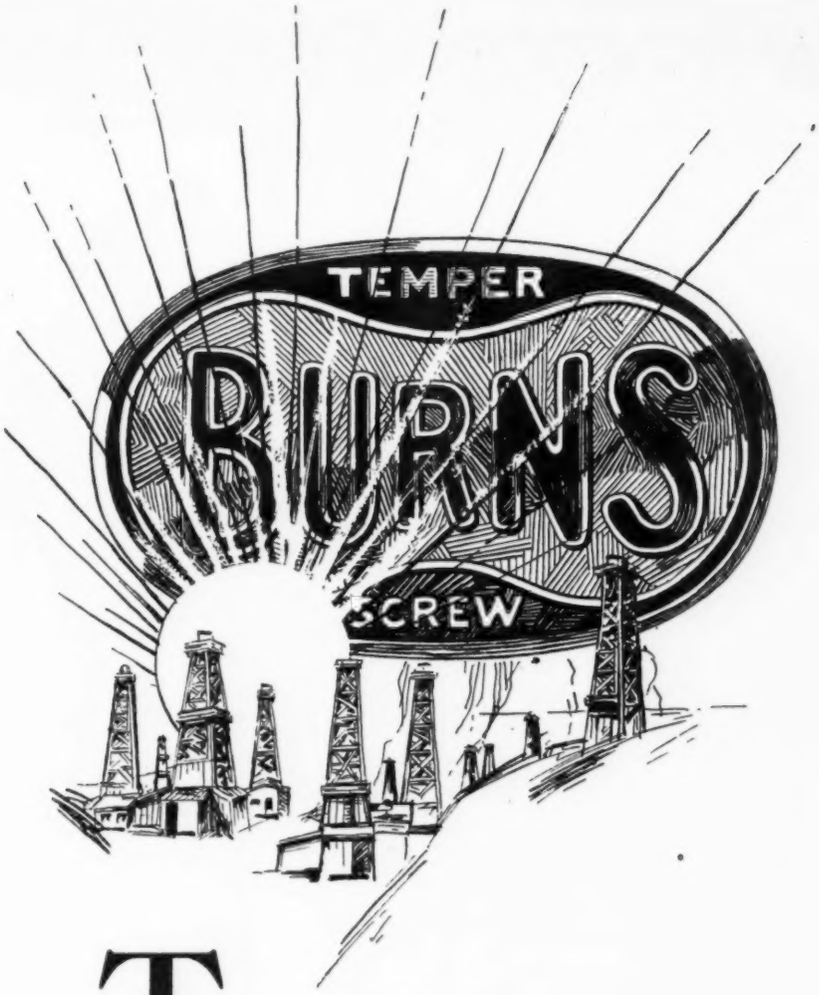
(Barrels of 42 Gallons)

	Week Ended April 23	Week Ended April 16
AT ATLANTIC COAST PORTS		
Baltimore	151,000	.....
Boston	.....	.....
New York	660,000	257,000
Philadelphia	72,000	222,000
Others	35,000	.....
Total	918,000	479,000
Daily Average	131,143	68,429
At Gulf Coast Ports	.....	.....
Total Atlantic and Gulf Coast Ports	918,000	479,000
Daily Average	131,143	68,429
Daily Average Four Weeks Ended	68,821	71,643
DISTRIBUTION OF TOTAL CALIFORNIA OIL RECEIPTS IS AS FOLLOWS:		
Crude	198,000	114,000
Gasoline	262,000	74,000
Gas Oil	.....	73,000
Fuel Oil	458,000	160,000
Lubricating	.....	58,000
Total	918,000	479,000

IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS
(American Petroleum Institute Figures. Barrels of 42 gallons)

(Barrels of 42 Gallons)

	Week Ended April 23	Week Ended April 16
AT ATLANTIC COAST PORTS		
Baltimore	141,000	366,000
Boston	.....	65,000
New York	384,000	191,000
Philadelphia	.....	133,000
Others	208,000	333,000
Total	733,000	1,088,000
Daily Average	104,714	155,429
AT GULF COAST PORTS		
Galveston District	51,000	58,000
New Orleans and Baton Rouge	165,000	65,000
Port Arthur and Sabine District	.....	.....
Tampa	.....	.....
Total	216,000	123,000
Daily Average	30,857	17,571
AT ALL UNITED STATES PORTS		
Total	949,000	1,211,000
Daily Average	135,571	173,000
Daily Average Four Weeks Ended	173,286	168,036



The Ally of the Sun!

Use of the Burns Tubular Temper Screw is world wide. As far reaching as the rays of the sun is Burns service. Supply stores everywhere carry the Burns Tubular Temper Screw in stock. Always use genuine Burns Parts, then when the rays of the sun drop below the horizon at evening you will have experienced another day of Burns dependable operation. Helping you to do the day's work better and more economically.

BURNS *Tool Company*

OKMULGEE - OKLAHOMA

Say you saw it in The OIL WEEKLY

WILDCATS FROM ALL SECTIONS

WEST TEXAS

Completions

Company, Well and Location	Initial Production Bbls.	Depth
Concho County—		
Associated Pet. Co., Sam Waring 1	†	2300
Crockett County—		
Geo. A. Henshaw & Co., Univ. 1..	*	1890
Ector County—		
The Exploration Co., Slater 1(DD).	*	4435
Fisher County—		
F. P. Zoch-McCamey et al, Clayton 1	*	3802
Jones County—		
Cole-Hart et al, Cranston 1.....	*	3403
Gillette-Hickey et al, King 1.....	*	2100
Upton County—		
Prairie O. & G. Co., Allie Lane 1..	500	2030

Andrews County—Carter & Zweifel's Cowden 1, elev. 3156 ft, top salt 1375 ft, sd 1530 ft. J. S. Cosden et al's Ratliff-Bedford 1, materials. Calvin-Belt et al's Ratliff-Bedford 1, lcn. Deed Rock Oil Co.'s W. J. Harris 1, elev. 3168 ft, spudding. Maer-Staniforth et al's W. S. Taylor-Meador 1, elev. 3215 ft, top salt 1650 ft, fsh tools 3010 ft. C. B. McKinnon et al's J. S. Means 1, machine.

Borden County—Stivers & Guthrie's Snodgrass 1, sd 2195 ft. J. L. Kennedy et al's J. S. York 1, lcn.

Brewster County—Van McPhail & Kempter's McIntyre 1, machine.

Coke County—Lipan Oil Co.'s S. M. Conner 1, elev. 2045 ft, sd 1133 ft.

Concho County—Arkansas Fuel Oil Co.'s Hartgrove 1, set 5 3/16-inch cas 2825 ft. Harry Adams et al's Price 1, dr 285 ft. Gene Mays et al's Hartgrove 1, sd 1950 ft. Exploration Co.'s Wilson-Hartgrove 1, elev. 1618 ft, dr 1925 ft.

Crane County—Geo. Church & Fields' University 2, rig; University-Duoll 1, elev. 2553 ft, top salt 1016 ft, dr 2420 ft. Church & Bert Weekly's University 2, dr 775 ft. Carl Cromwell & Frank Pickrell's University 4 and 6, rigs; University 5, dr 250 ft. Eastland Oil Co. & Collett-O'Keefe's University 3, 5 and 6, lcns; University 7, spudding. Gulf Prod Co.'s Crier-McElroy 6, elev. 2638 ft, top salt 1040 ft, top lime 2623 ft, cem. cas. 2623 ft; Crier-McElroy 4-A, elev. 2579 ft, top salt 972 ft, top lime 2624 ft, cem. cas. 2624 ft; McElroy 10, rig; McElroy 11, dr 330 ft; McElroy 12, 13, 14 and 15, rigs; University-Lassiter 6, elev. 2597 ft, top salt 1210 ft, top lime 2951 ft, oil pay 3035-85 ft, plugged back from 3105 ft to 3075 ft; University-Lassiter 8, 9 and 10, rigs; Waddell 1-A dr 1105 ft. Humble's University 9, dr 220 ft. Independent O. & G. Co.'s University 2, top salt 1025 ft, dr with HFO 2875 ft. Landreth Prod. Corp.'s State (Strip) 1, 2 and 3, rigs; State 4, 5 and 6, lcns. elev. 2566 ft, top salt 1065 ft, dr 2895 ft; University-Hardwick 4, dr 2880 ft; University-Hardwick 5, elev. 2582 ft, top salt 1150 ft, dr 2395 ft; University-Hardwick 6, elev. 2597 ft, top salt 1100 ft, dr 2115 ft; University-Harwick 3, 7 and 8, rigs; University-Lassiter 3, rig; University-O'Keefe 6, rig; University-O'Keefe 7, elev. 2591 ft, top salt 1270 ft, dr 2885 ft; University-O'Keefe 9, dr 2100 ft. Prairie's University 6-A, dr by tools in pay at 2965-3015 ft. Simms Oil Co. & Atlantic Oil Prod. Co.'s University 5-A, elev. 2582 ft, top salt 1045 ft, fsh tools in pay 2944-3005 ft; University 6-A, elev. 2561 ft, top salt 980 ft, top lime 2825 ft, flow by heads 2852-1960 ft; University 7-A, elev. 2572 ft, top salt 1050 ft, flow 75 bbls. oil per hour at 2867-29-68 ft; University 8-A, dr 375 ft; University 2-C, elev. 2582 ft, top salt 1110 ft, dr 2350 ft; University 3-C, and 2-D, rigs. The Texas Co.'s University 1, elev. 2552 ft, top salt 1225 ft, dr 2355 ft. Tidal Oil Co. & Turman-Maxwell's University 1-H, elev. 2580 ft, top salt12 25 ft, dr 2455 ft; University 2-H, elev. 2582 ft, top salt 1145 ft, dr 2675 ft.

Crockett County—V. T. Bolin & Co.'s P. O. Coates 1, dr 1325 ft. Cumberland O. & G. Co.'s Couch 1, sd 3075 ft. Carl Cromwell's Powell 4, dr 3225 ft. W. W. Donnelly & J. D. Young et al's Pierce 1, elev. 2105 ft, sd 1375 ft; Shannon 1, machine. J.K. Hughes Dev. Co.'s Powell 2-B, sd 2535 ft. Magnolia Pet. Co.'s Shannon 2, elev. 2670 ft, top salt 925 ft, top lime 2270 ft, dr 3615 ft. Wm. Schaffer et al's University 2, dr 170 ft. P. H. Williams et al's Powell 1, top salt 1052 ft, dr 1610 ft. World Oil Co.'s Schneeman 1, elev. 2632 ft, top salt 1035 ft, top lime 2280 ft, fsh junk 2575 ft. J. D. Young & Cromwell's University 1, sd 2200 ft.

Crosby County—El Capitan Oil Co.'s Slaton 1, elev. 2854 ft, top salt 1270 ft, sd 3510 ft.

Culberson County—Jas. Gardner et al's Radford-State 1, sd 410 ft.

Jeff Davis County—Humble's C. Flores 1, rig. J. K. Hughes Dev. Co.'s Means 1, dr 2825 ft.

Ector County—J. S. Cosden et al's Connell 2-A, top salt 870 ft, dr 1810 ft; Connell 3-A, dr 520 ft.

Fisher County—Barbour Oil Co.'s W. A. Cross 1-A, sd HFW 2350-70 ft. California Co.'s Anderson 1, elev. 1915 ft, dr 3375 ft; Magenheimer 1, elev. 2004 ft, sd 3550 ft. Hucony Gas Co.'s Langford 1, elev. 2201 ft, set 5 3/16-inch cas 3187 ft. Ideal Oil Co.'s Jameson 1, cavey hole 1550 ft. Marland Oil Co.'s Hodges-Rochelle 1, dr 3770 ft. Marland & Vacuum Oil Co.'s Lagow 1, spudding. Marland & Texon Oil & Land Co.'s McCall 1, rig. Fred Phillips et al's C. M. Webb 1, elev. 1811 ft, sd 2820 ft. R. W. Rainey et al's Marberry 2, sd HFW 2725 ft. Sinclair O. & G. Co.'s J. & Denise 1, sd 565 ft. Stearnes & Streeter's & Steeter's W. A. Howe 1, dr 3470 ft. F. P. Zoch & McCamey et al's Lanius 1, dr 3710 ft.

Garza County—Emerald Oil Co.'s Boren 1, sd 2600 ft. Pandem Oil Corp.'s Justice 1, rig.

Glasscock County—Green et al's Oxshear 1, sd 200 ft. Merriwether & World Oil Co.'s McDowell 1, rig. R. R. Penn & Julian Pet. Corp.'s Edwards 1, elev. 2502 ft, dr 665 ft.

Tom Green County—Marland Oil Co.'s Llano Fee 1, sd 2280 ft. Fitzgerald & Taliaferro's Bennett 1, rig.

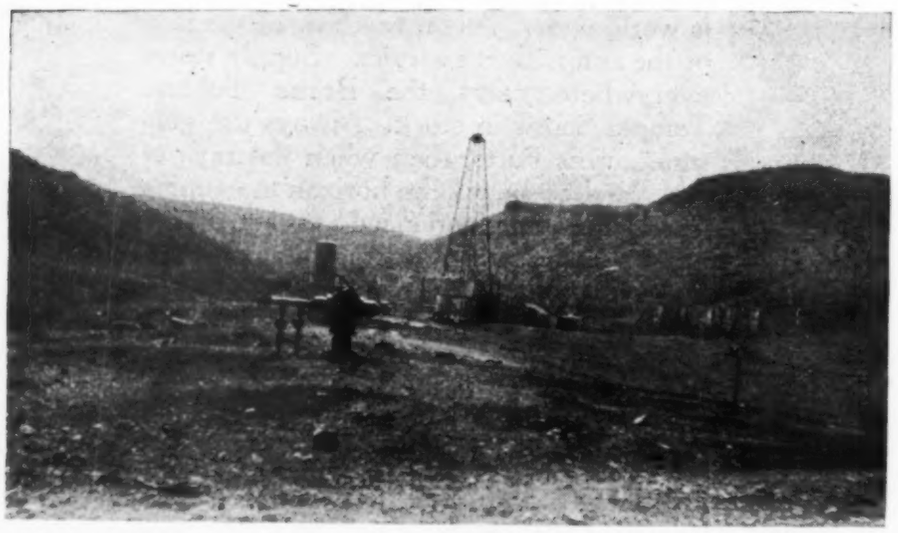
Hockley County—El Capitan Oil Co.'s Ellwood 1-A, dr 1520 ft.

Howard County—Bowers et al's C. Jones 1, spd. and sd. Bristow & Merrick's Hooks 3, dr 1310 ft. Fred Carey et al's Chalk 1, dr 810 ft. W. W. Donnelly & Mann's Martin 1, sd for water 1519 ft. F-H-E Oil Co.'s Roberts 1, dr 1270 ft. Gulf's Chalk 3, dr 1145 ft. Godley O. & G. Co.'s Hooks 1, rotary rig. L. C. Harrison et al's Roberts 1, sd 705 ft. Lockhart & Co. et al's Chalk 3, cem. cas. 1502 ft; Chalk 2-A, show oil 1470-73 ft, dr 1485 ft; Chalk 3-A, set cas 1401 ft. Magnolia's Kelly-Chalk 1, tested 10 bbls. at 1238-40 ft, dr 1270 ft; Kelly-Chalk 3, ur 8¼-inch cas. 846 ft; G. O. Chalk 6, dr 865 ft; Chalk 7, set 10-inch cas 545 ft; Sloan-Chalk 2, 3 and 4, rigs. Marland Oil Co.'s Chalk 5-A, sd 1628 ft; H. R. Clay 5, cor after shot 20 qts. 1782-93 ft; Clay 1-C, sd HFW 1817 ft; Clay 1-D, elev. 2676 ft, sd HFW 1988 ft. Marland & Texon Oil & Land Co.'s J. B. Harding 1, top salt 1146 ft, top lime 3125 ft, testing 2000 ft 28.2 degrees oil in hole from lime at 3163-3228 ft. Marland & F. P. Zoch's Fisher 1, dk; Guitar Ranch 1, dr 820 ft; Jones 1, dr 155 ft. Mid-West Exploration Co.'s Clay 1, show oil 1705 ft, dr 1725 ft. Owen-Sloan's Roberts 1, rig. Pure Oil Co.'s Chalk 1, dr 1365 ft; Chalk 2, dr 1585 ft; Chalk 3, dr 890 ft; Hooks 1, lcn. Tidal Oil Co.'s Chalk 2, dr with machine 1465 ft.

Hudspeth County—Lockhart & Co.'s Gardner-Moseley 1, sd 140 ft.

Irion County—Cashdollar & Whitmire et al's Abe Meyer 1, elev. 2050 ft, dr 2940 ft; Bird-Roberts 1, elev. 2065 ft, sd 1085 ft.

Jones County—Atlantic & Landreth's Howell 2, missed pay, sd 2700 ft. Bateman & Campbell's Southard 1, sd 1990 ft. Gault Brown et al's Mrs. Zips 1, dr 1705 ft. F. P. Campbell et al's Herndon 1, sd 1860 ft. Consolidated Oil Co. et al's Armand-Taylor 1, dr 2405 ft. R. F. Garland & Co.'s Glynn 1, lcn. Hurley Oil Co.'s Largent 1, sd 2560 ft. Gillette & Hickey's M. E. Young 1, sd 1200 ft. Grisham-Hunter & Wildman Pet. Corp's Mrs. F. G. Phillips 1, elev. 1820 ft, dr 3055 ft; Williams 1, dr 2810 ft. Hutson & Weaver's Smith 1, sd 700 ft. Kirk & Brewer's Milsap 1, dr 1880 ft. Manhattan Oil Co.'s S. W. King 1, dr 310 ft. Marsten Oil Co.'s Howell 1, show oil 2496 ft, sd 2545 ft; Swann 1, dr 2215 ft. Mid-Continent Pet. Corp.'s H. Evans 1, dr 2715 ft. Stebbins O. & G. Co.'s J. M. Higgs 1, pumped 60 bbls oil 13 hours at 1599-1605 ft. W. G. Stough et al's J. P. Willis 1, dr 810 ft. Phillips Pet. Co.'s Howell 1, lcn; Winters 3, riig; Winters 4, dr 2140 ft; Thornton 1, missed



Above is the beginning of the Pecos County wonder pool, showing the discovery well, Yates 1 jointly owned by Mid-Kansas and Trancontinental Oil Company, in the foreground, and No. 2 in the background under an 84-foot Lee C. Moore tubular derrick. This photograph was snapped by Bob Moore, assistant to head of Vacuum land department, last week while on a tour through this territory. Completion by the Illinois Pipe Line Company of a six-inch line from the Yates pool to McCamey last week will allow the four producing wells in Pecos County to be opened, they having formerly been pinched in to a combined daily flow of around 3500 barrels.

CATCHES

8 Different Sizes of Broken Rods~

The Guiberson Multiple Sucker Rod Socket has four sets of slips, each capable of catching two different sizes of rods. Since it is really eight sockets in one, it can be depended on to catch any broken rod **on the first run,** no matter where rod is broken.

Simplicity of design renders the Guiberson Socket easy to operate and easy to disengage from catch. All slips and shells are interchangeable, and are inexpensively and quickly replaced. Fully patented.

"Better Be Safe Than Sorry"

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Box 1106, Dallas, Texas

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321 S. Osage St., PONCA CITY
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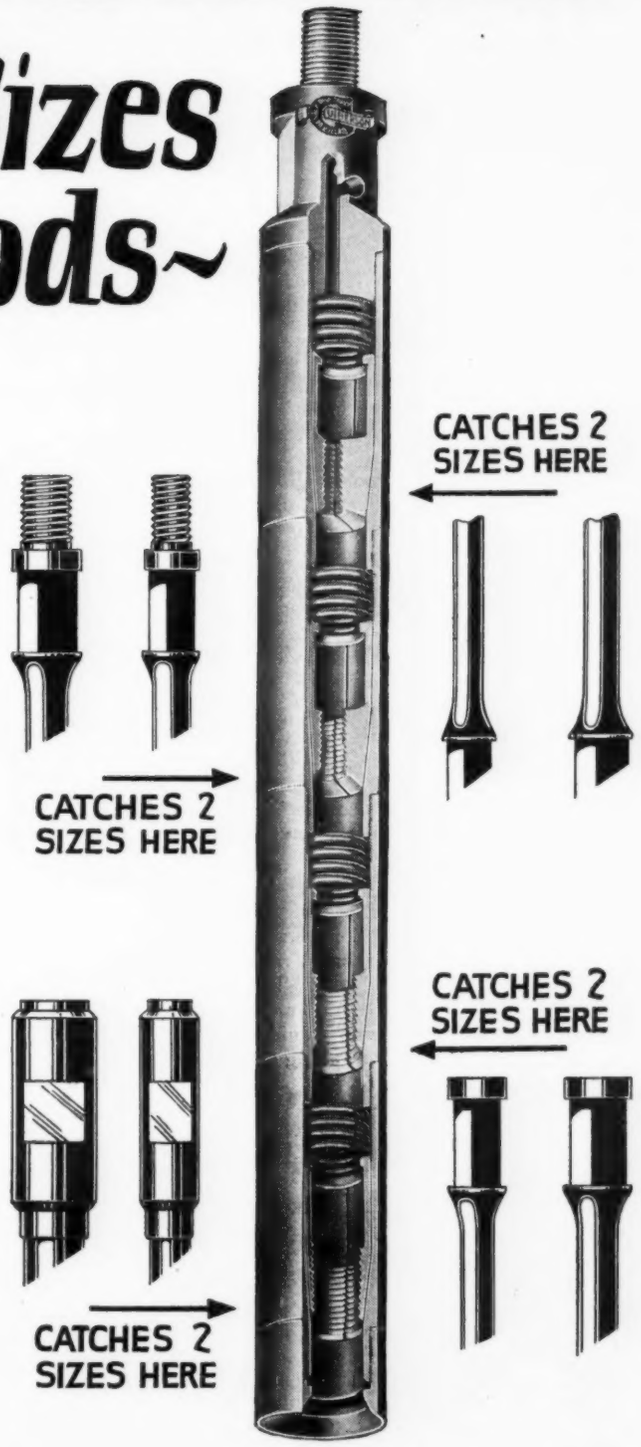


GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The OIL WEEKLY

pay, ur 5 3/16-inch cas 2985 ft; Tessie-Walling 4, dr 2470 ft; Tessie-Walling 5, lcn; Vestal 1, rig. Swensondale Oil Co.'s Canton 1, sd 1655 ft. J. L. Tomberlin et al's Clapp 1, sd 805 ft. World Oil Co.'s Boyd 1, cor 2400 ft. Zeigler et al's J. W. Reeves 1, sd 1750 ft.

Kent County—Douglas Oil Co.'s Scoggins 1, sd 1540 ft. Marland & Texon's Bilby 1, lcn.

King County—Gibson-Johnson's Burnett 1, sd 1140 ft. Mid-West Explor. Co.'s Patton 1, spudding. Phillips Pet. Co.'s Burnett 1, dr 2425 ft. Sinclair O. & G. Co.'s Burnett 1, dr 610 ft. J. L. Pattison et al's Patton et al's Patton 1, sd 1280 ft. White Eagle O. & R. Co.'s Burnett 1, dr 1500 ft.

Standard of Cuba Takes Over Properties

Havana, Cuba.—Standard Oil Company of Cuba, subsidiary of the Standard of New Jersey has acquired the entire holdings of the West India Oil Refining Company, including a local refinery of 6000 barrels capacity. The refinery is at present running only about 2000 barrels daily.

Outlining of acreage for prospective production is reported active in the oil region of Cuba at present. R. F. Ryan, formerly with Mills Bennett Production Company, Houston, as head of the geological department, is now doing considerable research in Cuba.

Interest is being manifested in a deep test being drilled by the Western Oil Company on Bald Spot Dome, 20 miles from Havana, which is now below 3905 feet.

Statistics issued by the Cuban government for 1925 show that during that year imports of petroleum totaled 361,849,289 gallons, including 317,000,688 gallons of crude for fuel, 31,831,999 gallons for refining, and the remainder in refined products, making approximately 8,615,000 barrels.

Government statistics further show Cuba's petroleum production thus far to be 3,495,421 gallons. Asphalt production since 1909 has amounted to 79,810 tons. Asphalt claims granted to date number 268, equalling 44,155 acres, while petroleum claims are 189, totalling 229,155 acres.

Loving County—Owen-Sloan et al's Johnson 1, dr 455 ft. Kingwood Oil Co.'s Moore 1, sp. ding.

Mitchell County—California Co.'s Foster 3, lcn. Magnolia's Mary Foster 4, dr 3105 ft; T. L. McKinney 1, dr 2355 ft; W. W. Watson 2, dr 2995 ft. Morrison-Thompson's Griffin 1, elev. 2279 ft, dr 3035 ft. Paul Teas et al's Ed. Strain 1, dr 2615 ft. Robert Thraves et al's C. Way 1, rig. B. E. Walters et al's Dollen 1, sd HFW 3955 ft.

Nolan County—A. G. Malone et al's Carlyle 1, lcn; McElmurray 1, spd. & sd. Herbert Oil Co.'s Pepper 1, rig. Phillips Pet. Co.'s Scott 1, dr 2210 ft. Thomas & Reynolds' Allen 1, dr 1915 ft. John H. Winemiller Corp.'s W. L. Booth 1, sd 960 ft. Henry Zweifel et al's Longbotham 1, sd 1310 ft.

Pecos County—Geo. Anderson et al's Sherbino 1, lcn. Allsman & Bell et al's Pecos River Bed 1, materials. Arkansas Fuel Oil Co.'s Manly Holmes 1, elev. 2507 ft, top salt 640 ft, sd to test show oil 2132 ft. Buell-Hagen et al's Jasper 1, lcn; Southern Life-Batchelor 1, elev. 3136 ft, sd 2045 ft; McKenzie 1, top salt 1170 ft, dr 1465 ft. Cromwell & Pickrell's Blackman-Scharff 1, elev. 2402 ft, top salt 890 ft, dr 1900 ft. T. R. Cowell's J. C. Trees 1, elev 2545 ft, top lime 2875 ft, fsh cas. 3115 ft. California Co.'s Cordova Union Fee 1, elev. 2615 ft, salt at 834-50 ft, pumped 240 cubic feet mud in hole to shut off water 1850 ft. M. C. Dibble et al's Bonebrake 1, rig. John Droppleman et al's Hersheusen 1, dr 1425 ft. R. F. Garland & Co.'s El Paso Fee 1, lcn. Kershaw & Livingston's Cannon 1, lcn. Geo. A. Henshaw & Co.'s I. G. Yates 1, elev. 2250 ft, top salt 525 ft, dr 1145 ft. Humble & Kirby Pet. Co.'s J. F. McIlroy 1, dr 225 ft. Mid-Kansas & Transcontinental's I. G. Yates 4-A, set 6⅝-inch cas. 1103 ft; Yates 1-C, fsh 858 ft; Smith-Taylor 1, sd 490 ft. Olean Pet. Co.'s Arthur Harral 1, lcn; G. A. Harral 1, lcn; Sherbino 1, lcn. Pecos Big Three Oil Co.'s A. G. Robertson 1, lcn; I. G. Yates 1, lcn; M. Holmes 1, lcn. Red Bank Oil Co.'s Arthur Harral 1, lcn. The Seventy-Five Oil Co.'s Perry 1, rig. W. R. Shankel et al's Yates 1, rig. Texon Oil & Land Co.'s Yates 2, top salt 430 ft, fsh 1096 ft; Yates 3, lcn Texon & Marland's Blakesley 1, dr 790 ft. Quinby Oil Co.'s A. A. Gray 1, crooked hole 575 ft; Bennett 2, sd HFW 1452-57 ft. World Oil Co.'s M. Serf 1, lcn.

Presidio County—Hadlock & Miller's Tootle 1, ur cas. td 2550 ft.

Reagan County—The Texas Co.'s J. D. Sugg 2, elev. 2549 ft, top salt 860 ft, top lime 2290 ft, dr 3155 ft. Tidal Oil Co.'s University 1, top salt 1302 ft, dr 1460 ft.

Reeves County—Deep Rock Oil Co.'s Caldwell 1, set 6⅝-inch cas. 3535 ft. Humble's T. & P. Fee 1-B, sd repairs 1930 ft. Exploration Co.'s A. A. Kinney 1, spd. and sd. World Oil Co.'s Duff 1, dk; Biggs-Holder 1-A, sd indefinitely 1610 ft.

Runnels County—Ladd-Hill et al's McMillan 1, sd HFW 1400 ft.

Scurry County—Northwest Co.'s stinson 1, dr 4215 ft.

Sterling County—Bill Little et al's Fisher 1, machine. Orr et al's Neal Reed 1, lcn. P. H. Williams et al's Clark 1, sd 1020 ft.

Stonewall County—R. F. Garland & Co.'s (was Zoch-McCamey) Ward 1, sd 1340 ft.

Taylor County—Gibson-Johnson's J. F. Hendry 1, 1225 ft. Grisham-Hunter Corp.'s Huddleston 1, cas. trouble 2585 ft. Humble's Mattie Jacobs 1, dr 2060 ft. Halbert et al's Hunt 1, sd 1610 ft. Dorning & Perrine's J. A. Hammer 1, sd 455 ft. Mid-West Explo. Co.'s Dora Smith 1, casey hole 2245 ft; Toomles 1, sd 1785 ft. Mitchell & Breene's Tittle 1, lcn. Morrison-Thompson's Rose 1, dr blue shale 2510 ft. Owen-Sloan's Latimer 1, sd 725 ft. Roeser-Pendleton, Inc.'s Sam Butman 1, sd 710 ft. Sanger O. & R. Co.'s Ike Brown 1, sd 1900 ft; Gillespie 1, dr 4150 ft. World Oil Co.'s J. R. Griffin 1, dr 1305 ft.

Terry County — Kingsland Oil & Potash Co.'s Brownfield 1, sd 1235 ft.

Upton County—Beatty et al's Lane 1, elev. 2677 ft, top salt 880 ft, dr 2665 ft. Hults & Curtis et al's Giddings 1, sd 3615 ft. W. W. Donnelly & Marland's University 1, elev. 2884 ft, top salt 1550 ft, dr 3200 ft. Gulf's J. F. Lane 1, dr 150 ft. Simms Oil Co.'s B. C. Clark 1, top salt 440 ft, sd to skid 1060 ft account of wrong lcn. The Texas Co.'s Perry 1, lcn.

Val Verde County—Douglas Oil Co.'s Sellars 1, dr 2675 ft. Magnolia's W. F. Whitehead 1, spudding. S. A. McCaskeys' Sellars 1, fsh 2585 ft. O. O. Owens et al's Mills 1, sd 2040 ft. E. T. Williams et al's Holman-McNutt 1, sd 2605 ft.

Ward County—Marland's Sealy 1, elev. 2820 ft. top salt 1070 ft, dr 3055 ft.

Winkler County—Champlin Ref. Co. et al's Cowden-Means 1, elev. 2889 ft, top salt 1375 ft, dr 1825 ft. Gudf's T. G. Hendricks 2, 3 and 5, dks, sd by agreement; Hendricks 4 and 6, rigging up. Hill-Simon & Ladd's Ambrugey 1, elev. 2995 ft, top salt 1220 ft, sd 3447 ft. Huble's Hendricks 1, rig; Hendricks 1, Group 1, sd 318 ft. Independent O. & G. Co.'s Hendricks 1, elev. 2804 ft, top salt 2375 ft, top lime 2720 ft, top pay 2877-2926 ft, recementing cas. after gas broke in; Hendricks 1-A, rig. LlanoOil Co.'s Scarborough 1, elev. 2921 ft, top salt 115 to 2640 ft, top lime 2665 ft, set cas. 2671 ft. McCulloch Oil Co. & Marland's Tobe Morton 1, dr 1840 ft. R. S. Matthews et al's Cowden 1-A, sd 200 ft. Pure Oil Co.'s Central State Bank Fee 1, dr 935 ft; Bank Fee 2, rig. Skelly Oil Co.'s M. M. Leeman 1, elev. 2951 ft, top salt 1167 ft, dr anhydrite 3720 ft. Southern Crude Oil Purchasing Co.'s Hendricks 2-C, elev. 2824 ft, top salt 1901 ft, stdz 2553 ft; Hendricks 3-C, elev. 2816 ft, top salt 1870 ft, dr 2290 ft; Hendricks 1-B, dr 1620 ft. Texon Oil & Land Co.'s Central State Bank Fee 1, rig. White Eagle O. & R. Co.'s R. A. Leck 1, spudding.

EAST TEXAS

Completions

Harrison—		
Waterman Drlg. & Dev. Co., Hickman 4	¶9	962
Panola—		
Magnolia Pet. Co., Johnson 6	5	1974
Steele 5	*	2429

Anderson—Humble's Hasal 1, Posey, dr 3540 ft.

Cherokee—Humble's Reynolds Mortgage Co. 1, Boggy Creek, rigging up; Earle & Ragsdale 2, Boggy Creek, set 10-inch cas 1410 ft; Elliott-Clark 2, Boggy Creek, rigging up. Magnolia's Sumners 1, Ponta, r over sand show 4323-29 ft.

Freestone—Orbitt Oil Co.'s Colman 1, sd 3509 ft, shale, oil odor.

Houston—Porter et al's Austin 3, sd 3470 ft.

Harrison—A. R. Bahan's Abney 2, set 10-inch at 100 ft. Sabine Drlg. & Dev. Co.'s Williams 1, dr 2307 ft.

Marion—Moorefield et al's Stiles 1, wosr 2370 ft.

Panola—Magnolia's Lewis 3, set 10-inch at 100 ft; Tiller 4, lcn.

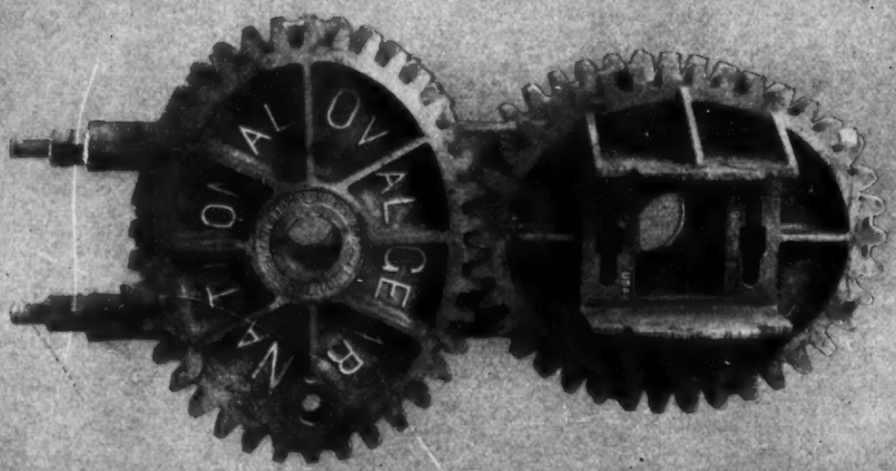
Shelby—Arkansas Fuel Oil Co.'s Bouland 1, dr 3724 ft. Clark & Melat's Pickering 1, fsh 2808 ft. Magnolia's Pickering 1, set 13⅜-inch at 191 ft.

Tyler—Cheasman & Reynolds' Stone 1, sd 3240 ft.

(Continued on page 102)

Western Oil Company's San Jose 1, drilling near 4000 feet on Bald Spot dome near San Jose de Las Lahas, about 20 miles from Havana.

NATIONAL OVAL GEAR PUMPING ATTACHMENT



THE NATIONAL SUPPLY COMPANIES

PERMITS GRANTED FOR NEW WELLS

KANSAS

Butler County—Connell Oil et al, Hoffman 1, nw ne 9-28-5e. Johnson et al, Rogey 1, nw ne nw 10-28-6e.

Elk County—Cosden et al's Osborn 1, se ne se se 28-29-10e.

Ellsworth County—Osage, Blank 1, c ne 16-14-9w.

Greenwood County—Connell et al, Ogagan 1, sw nw ne 32-22-11e. White et al, Gray 3, ne nw ne 26-24-9e.

Marion County—Empire, Ely 1, nw ne sw 36-20-3e.

Russell County—Mid West Ref., Munsell 3, 18-12-15w; Dortland 6, nw se 5-14-15w.

Sumner County—Roxana, River Bed 8, nw se sw 25-31-2e; Churchill 8, sw ne sw 25-31-2e; Churchill 9, ne nw se sw 25-31-2e.

OKLAHOMA

Beckham County—C. & H. Pet., Barnes 1, nw ne 32-9n-22w.

Carter County—Humble, W. C. Jordan 14, ne sw nw 19-1s-3w. Magnolia, W. Hardink 7, sw nw nw sw 19-1s-3w. Humble, Jennings 3, nw sw se 28-1s-3w. Magnolia, L. D. Ackers 1, se ne 30-1s-3w. Atlantic Liles 3, nw ne nw 11-2s-3w. Magnolia, Swartz 8, nw ne 26-2s-3w. Roxana, Sarasota 1, se 13-4s-2w. L. E. Trout, L. Noble 1, c se nw 22-3s-1e.

Creek County—C. G. Tibbens, Grayson 1, se 5-18-12. Carter, Griswell, sw se sw 1-17-10e. Elson et al, Wilcox 1, ne nw nw 12-17-10e. Thompson-Elson et al, Turner 3, nw ne nw 12-17-10e. Cumberland Pet., Tigers 5, c e l ne se 13-17-10e. J. H. Wright, Tahkaney 18, ne sw nw 24-17-10e, Skelly, Yellowhead 4, nw ne sw 32-17-10e. H. C. Wilson, Durant 1, nw ne 10-15-8e. J. B. Greives, Bartlett 3, ne 13-19-8e. C. G. Tibbens, Marshall 1, sw se sw 33-15-9e. Roxana, G. Smith 2, nw nw se 18-19-9e. McLean et al, Land 1-A, ne se se 2-18-11e.

Garfield County—Amerada, Wilcox 1, sw ne 19-23-3w.

Grady County—Gypsy, Kayser 5, sw ne se 16-3n-5w. Prairie, Dryden 4, se ne 3-4n-8w. Noble & Westerfelt, Pearl Smith 1, nw 24-5n-5w.

Hughes County—Independent, Irving 5, se 15-8-10e. Phillips, Irving 1, sw se sw 17-8-10e. Burk-Greis, McGrit 1, ne nw ne 15-8-9e. Transcontinental, Ogle 7, nw ne ne 4-9-9e.

Jefferson County—Humble, Seay 1, sw se se 9-7s-5w.

Kay County—Wentz, Andrews 1Q, nw ne 8-28-1w. Comar Oil Co., Scott 1, sw nw ne 20-28-1w. Wentz, Garris 1G, se nw 31-27-2e. Mathews et al, Buessing 1, nw 8-27-1e. Blackwell, Denton 1, sw se 31-27-1e.

Lincoln County—Magnolia, School land 1, nw se 36-16-5e.

Murray County—Thompson Oil Corp., Freeman 1, se 27-1s-2e. Jolly Ogg Oil Co., T. Lewis 1, ne sw ne 17-15-17e. W. H. Trapp et al, Scott 1, nw se sw 11-14-18e. F. E. Webb et al, Asbury 4D, nw se nw ne 20-16-15e.

Okfuskee County—Riverland Oil, Grayson 1, ne se sw 31-11-11e. Riverland Oil, N. Barnett 1, sw se sw 19-11-11e.

Okmulgee County—X. K. Stout, Mayfield 5, c s l sw sw 20-16-14e. Wheeler & Empire, Arnold 1, ne nw se 3-15-12e. Seburg, Tunnelly 1A, c ne se 32-12-12e.

Osage County—I. T. I. O. 361, sw nw 20-23-10e. Sand Springs Home Oil Co., 103, sw ne sw 28-21-10e. Barnsdall 1, c s l sw ne 19-25-6e. George Parker, 4, nw sw 28-26-6e; 3, ne nw sw 28-26-6e; 2, nw ne sw 28-26-6e; 1, ne sw 28-26-6e.

Payne County—Payne County Pipe Line, Knots 1, ne se se 7-18-4e.

Pottawatomie County—Magnolia, Mombree 1, nw se 19-7n-5e. Wrightsman et al, Davis 2, ne nw 30-7-4e. Mid-Continent, Doyle 8, sw sw 19-7-4e; Doyle 7, ne se sw 19-7-4e; Doyle 6, nw se sw 19-7n-4e; Doyle 5, ne sw sw 19-7-4e; McKinley 4, ne nw sw 9-9-5e.

Seminole County—Sinclair, Milley 1, nw se 24-9-5e. Gypsy, Stidham 1, se ne sw 24-9-5e; Harjo 1, ne sw 24-9-5e. Twin State, Barker 1, sw nw ne 12-9-5e. Magnolia, Seay 3, ne nw sw 12-9-5; Dixon 2, se sw 12-9-5e; Dixon 1, sw se sw 12-9-6e. Continental, Hollins 1, se nw 12-9-5e. Magnolia, Holmesly 3, nw se se 11-9-5; Holmesly 2, nw ne se 11-9-5. Philmack, Sango 1, se ne nw 11-9-5. Prairie, R. Stidham 4, ne se ne 11-9-5e. Mid Land Oil, Wise 1, nw se nw 23-8-6e. Gypsy, Bowlegs 1, ne nw se 22-8-6e. Prairie, R. W. Whitley 3, se nw nw 23-8-6. Gypcy, Bowlegs 1, ne nw se 22-8-6e. Pure Oil, Strothers "E" 1, se sw ne 16-8-6e. I. T. I. O., Wilmouth 4, se ne ne 15-8-6e. Pure Oil, Strothers "D" 1, sw ne nw 14-8-6e. Carter Harjoche 5, sw nw nw 14-8-6e. I. T. I. O., Fay 3, se nw sw 13-8-6e. Carter, Micco 1, nw 8-8-6e.

Stephens County — Hammond & Haddock, Ball 1, c w l sw nw 1-1n-9w. Wirt Franklin, Apple-Franklin 3, se ne 24-1s-4w. F. W. Merrick, Underwood 2, nw ne se 13-1s-4w; Underwood 3, sw ne se 13-1s-4w. Margan Oil Corp., Lane 5, se sw nw sw 7-1s-8w. W. H. Smith, Peddycoat 1, ne nw ne 24-1s-4w. Murphy Oil, Payne 3, nw sw sw se 1-1n-5w.

Tillman County—P. C. Dean et al, Hallopath 1, ne 6-5s-14w.

MOUNTAIN STATES

WYOMING

E. J. Sullivan et al's 1, sw 32-58-99. Scherdel Oil Corp.'s 1, ne 20-53n-101w. E. T. Williams Oil Co.'s Salt Creek 8M, sw 11-39-79. Cal. Pet. Corp.'s La Barge 5H, 34-27-113; La Barge 51, 34-27-11. Midvale Oil Co., La Barge 1, se 8-27-113. Rainbow Oil Co., La Barge 4A, 3-26-113.

UTAH

Chas. D. Alsop's 1P, 19-43s-15w. Holmes-McGee Synd., 1, ne 14-15s-10e. Calpet Oil Co.'s 5H, sw 34-27n-113w; No. 5D, nw 34-27-113w.

NEW MEXICO

Larsen Oil & Mining Co., 1, sw 11-28n-11w.

MONTANA

Hill Oil Co., 5, sw 21-35-2w. Kewanee Oil Co., 8, sw 32-35-1w. Calpet Oil Co., 7, ne 28-35-2w; 8, ne 28-35-2w; 1, ne 25-35-2w; 3, ne 15-35-2w. Ohio Oil Co., 8, sw 32-35-1w. Dakota-Montana Oil Co., 3, ne 7-34-1w; 20, sw 6-34-1w. General Pet. Co., 1, se 27-35-1w. Homestake Oil Co., 26, ne 36-35-2w. "56" Oil Co., 25, ne 32-35-1w; 26, ne 32-35-2w.

LOUISIANA

Caddo Parish—Carrie Cole and W. D. Chew, Shreveport, Chew 6, 3-21n-16w, 2540 ft s and 1700 ft w of ne. Dixie Oil Co., Shreveport, Dillon 87, 14-21n-15w, 2005 ft n and 430 ft w of se; Fitzsimmons Drlg. Co. 8, 14-21n-15w, 265 ft n and 390 ft w of center. B. A. Hardey, Tr., Shreveport, Thigpen-Herold 2, 26-18n-16w, 1320 ft s and 660 ft e of nw. Haynes Bros., Shreveport, Murray 1, 14-21n-15w, 150 ft s and 150 ft w of ne sw sw. Texas Co., Shreveport, Curtis 7, 14-20n-15w, 660 ft s and 200 ft w of ne nw sw; W. E. Noel B-13, 14-21n-15w, 1055 w and 330 ft n of center.

Calcasieu Parish — Gulf Ref. Co., Houston, Star-Vincent 42, 34-10s-12w, 770 ft s and 460 ft e of nw sw. Vacuum, Houston, Freiberg & Wolf 4, 9-10s-9w, 400 ft s and 200 ft w ne sw; Miller 15, 9-10s-9w, 150 ft s and 1245 ft e nw se; Miller 16, 9-10s-9w, 550 ft s and 870 ft e of nw se; Miller 17, 9-10s-9w, 650 ft n and 1170 ft e of center; State Bayou D'Inde 3, 9-10s-9w, 475 ft n and 635 ft w of se sw nw.

De Soto Parish—Pollock & Foster, Mansfield, Charles Jones 1, 8-11n-14w, 330 ft s and 300 ft e of nw sw nw.

Franklin Parish—T. R. Cowell, Pittsburgh, Pa., Moore 2, 12-11n-6e, 200 ft s and 200 ft e nw ne se.

Grant Parish—Word & Philp, Georgetown, Barrette 1, 17-9n-1e, 123 ft w and 75 ft s of ne se se.

Sabine Parish—Arkansas Fuel O. Co., Shreveport, Logan Oil Co. 6, 33-10n-12w, 330 ft s and 330 ft w ne nw; Logan Oil Co. 7, 33-10n-12w, 966 ft s and 330 ft e nw ne. Louisiana Oil Ref. Corp., Shreveport, Logan 1, 28-10n-12w, 330 ft n and 330 ft w se sw sw. Robinson & Fair, Shreveport, Hamlin Est. 1, 6-9n-13w, 330 ft s and 330 ft e of center.

Union Parish—Interstate Nat. Gas Co., Monroe, W. C. Steele 1, 36-20n-3e, 660 ft s and 1980 ft e nw.

Vernon Parish — Texas-Gulf Sulphur Co., Houston, P. K. Kelley 1, 11-1n-9w, 419 ft n and 955 ft e sw se ne.

Webster Parish—Magnolia, Shreveport, J. T. Marshall 1, 21-21n-10w, 330 ft s and 330 ft e nw se.

ARKANSAS

Hempstead County—Arkansas Natural Gas Co., Goodlet 1, 30-10-26, 300 ft n and 300 ft e of center.

Union County—Natural Gas & Fuel Corp., Bilyew 8, 9-16-15, 446 ft s and 100 ft w of ne nw nw. Ohio Oil Co., Murphy 6, wo, 9-16-15. S. Richardson, Lawton 5, wo, 10-16-15. Stewart et al's Murphy 5, wo, 9-16-15.

TEXAS

Archer County—Gulf, Fort Worth, Wilson 1, s 1 S. P. Ry, 150 ft to n and e lines. Continental & Cullum, Wichita Falls, Wilson 1, s114 Amer. Trib., 490 ft to s and 150 ft to w line. Maer & Stanforth, City Natl. Bank Bldg., Wichita Falls, Wilson 4, Day Land & Cattle, 300 ft s of No. 3. W. C. Young, Wichita Falls, Abney 4, b 1 S. P. Ry., 450 ft to e and 150 ft to s line. V. O. E. Wright, Wichita Falls, Miller 4, b 18, D.C.S.L., 300 ft nw of No. 3. Shappell Oil Co., Wichita Falls, Prideaux 12, J. J. Hand, 450 ft s of No. 10. Roxana & Abercrombie, Archer City, Harris 1, b 96 Club Ranch, 150 ft to s and w lines. H. L. Graham, Waggoner Bldg., Wichita Falls, Edwards 1, b 26 G. Bruner, swc. Russell & Wilson, Waggoner Bldg., Wichita Falls, Prideaux 9, A. Rohus, 300 ft s of 3; 10, A. Rohus sur, 300 ft s of 8.

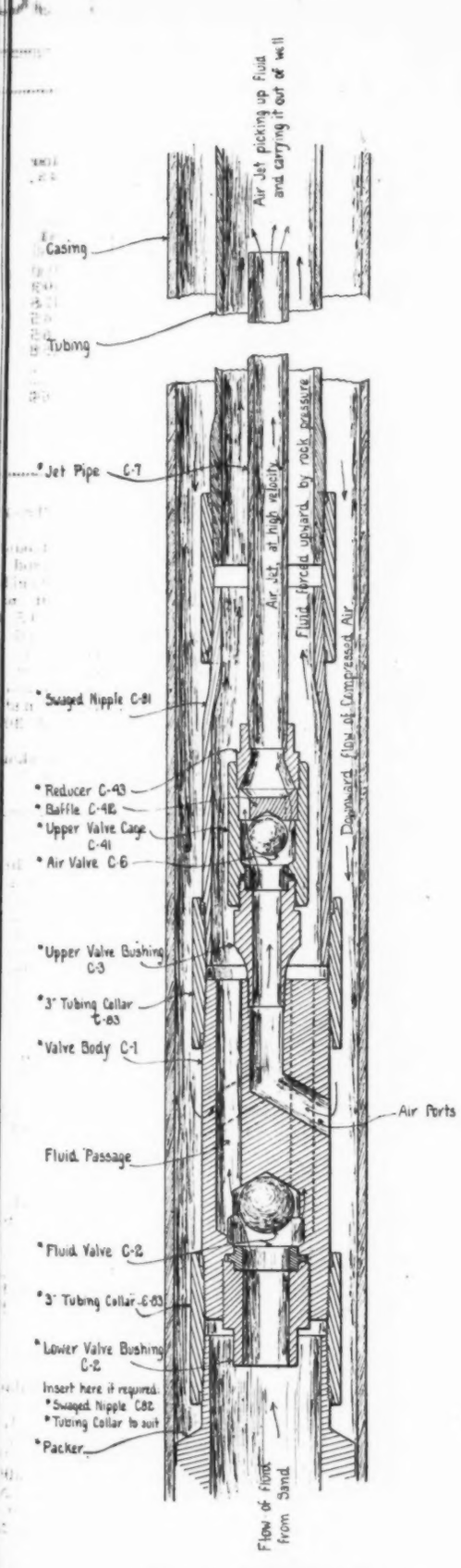
(Continued on page 110)

WEEKLY COMPARISON OF NEW WELLS

Following is a condensed table giving a comparison of permits or locations made for new wells during the past year in Kansas, Oklahoma, Arkansas, Louisiana, Texas, California and the Mountain States:

	Week Ending April 29	Previous Week	Total This Month	Total This Year	This Week Last Year	This Month 1926	Total Same Date 1926	Year Total 1926
Arkansas	5	7	33	150	30	124	473	910
California	39	21	149	546	18	135	666	1,293
Louisiana	23	8	71	198	37	150	452	1,318
Kansas	12	17	66	431	34	170	741	1,745
Oklahoma	92	64	341	1,539	114	589	2,032	5,165
Texas	184	136	738	3,819	218	1,170	4,109	12,158
Mt. States	25	14	92	261	....	....	....	....
Totals	380	267	1,423	6,708	451	2,338	8,473	*22,569

*Does not include Mountain States.



Ideal Section through Well and Valve
* Parts marked with star furnished with Valve.

ANNOUNCING

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Economy Flow Valve

For Flowing Thru the Tubing

The only successful valve being used in the Seminole field, by large producers.

No back or added pressure put on the sand, operates at low pressure, flows the well steady, with minimum volume.

IT WILL PAY YOU TO GET INFORMATION ON THIS DEVICE

Circulars gladly furnished, or our representative will call.

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Tulsa, Okla.

115 SO. DENVER PHONE 7271

Summary of Field Operations for April, 1927

EASTERN STATES

	Completions	Producers	Gas Wells	Failures	Initial Prod.
Pennsylavnia	254	226	20	8	808
Kentucky	85	68	2	15	2,974
Ohio	172	109	39	24	4,721
West Virginia	118	28	61	29	773
Tennessee	7	7	..	..	845
New York	38	36	2	..	112
Indiana	25	9	2	14	325
Illinois	11	9	..	2	345
Michigan	24	24	..	..	1,335
Totals	734	516	126	92	12,238

PENNSYLVANIA

Allegheny	1	..	1	..	.....
Beaver	1	..	..	1	.....
Bradford	176	176	..	..	490
Butler	14	8	4	2	19
Center-Middle	5	4	1	..	15
Clarion	9	3	4	2	7
Crawford	1	1	..	..	3
Greene	15	4	9	2	190
Venango	31	29	1	1	79
Washington	1	1	..	..	5
Totals	254	226	20	8	808

KENTUCKY

Allen	5	4	..	1	5
Barren	19	14	..	5	120
Clinton	1	1	..	..	150
Cumberland-Monroe	5	4	..	1	50
Daviess	1	1	..	..	5
Edmundson	1	1	..	..	10
Estill	2	2	..	..	8
Floyd-Knott	2	..	2	..	.....
Johnson-McGoffin	8	7	..	1	47
Lawrence-Johnson	1	1	..	..	5
Lew-Owsley	2	2	..	..	15
Morgan	1	1	..	..	1
Noble	1	..	..	1	.....
Ohio	23	22	..	1	2,472
Warren	8	5	..	3	48
Washington	1	..	..	1	.....
Wayne	4	3	..	1	38
Totals	85	68	2	15	2,974

OHIO

Ashland	2	..	2	..	.....
Athens	9	3	2	4	22
Auglaize	4	2	..	2	10
Belmont	2	2	..	..	47
Carroll	2	2	..	..	30
Coshocton	3	..	1	2	.....
Cayuhoga	5	..	5	..	.....
Darke	1	1	..	..	9
Fairfield	1	1	..	..	4
Guernsey	24	15	9	..	2,399
Hancock	4	3	..	1	23
Hardin	1	1	..	..	25
Hocking	9	4	..	5	497
Holmes	18	12	5	1	828
Knox	4	..	2	2	.....
Licking	35	31	3	1	525
Logan	1	..	1	..	.....
Lucas	1	..	1	..	.....
Medina	6	3	2	1	4
Mercer	2	2	..	..	7
Meigs	7	5	2	..	22
Monroe	2	..	1	1	.....
Morgan	2	1	..	1	5
Ottawa	4	3	1	..	24
Perry	6	3	1	2	100
Sandusky	3	3	..	..	17
Seneca	1	1	..	..	40
Shelby	3	3	..	..	32
Tuscarawas	1	..	..	1	.....
Vinton	2	2	..	..	8
Washington	2	1	1	..	5
Wood	5	5	..	..	38
Totals	172	109	39	24	4,721

ILLINOIS

Clark	1	1	..	..	40
Crawford	2	1	..	1	2
Lawrence	3	3	..	..	28
Wabash	5	4	..	1	275
Totals	11	9	..	2	345

MICHIGAN

Sagniaw	24	24	..	..	1,335

TENNESSEE

Clay	7	7	..	..	845

NEW YORK

Allegany	38	36	2	..	112

INDIANA

Adams	2	1	1	..	10
Bartholomew	1	..	..	1	.....
Daviess	8	3	..	5	182
Gibson	3	..	..	3	.....
Jay	2	2	..	..	65
Pike	5	3	..	2	68
Spencer	1	..	..	1	.....
Sullivan	1	..	..	1	.....
Vigo	1	..	1	..	.....
Warrick	1	..	..	1	.....
Totals	25	9	2	14	325

WEST VIRGINIA

Boone	3	..	3	..	.....
Braxton	4	..	1	3	.....
Cabell	3	..	2	1	.....
Calhoun	11	1	7	3	8
Clay	10	9	1	..	170
Doddridge	4	2	1	1	23
Gilmer	5	1	4	..	50
Harrison	5	1	4	..	15
Jackson	2	..	..	2	.....
Kanawha	1	..	1	..	.....
Lewis	2	..	2	..	.....
Lincoln	10	..	10	..	.....
Marion	8	1	4	3	5
Marshall	5	1	3	1	5
Mingo	4	3	..	1	105
Monongalia	4	..	3	1	.....
Pleasants	7	2	..	5	17
Ritchie	11	4	5	2	358
Roane	10	1	7	2	5
Wetzel	4	1	3	..	10
Wirt	1	1	..	..	2
Wood	4	..	..	4	.....
Totals	118	28	61	29	773

CALIFORNIA

Athens-Rosecrans	2	2	..	..	3,143
Alamitos Heights	1	1	..	..	3,500
Baldwin Hills-Inglewood	4	4	..	.	1,066
Brea-Richfield	6	6	..	..	2,018
Cat Canyon	2	2	..	..	350
Dominguez	1	1	..	..	300
Elk Hills	1	1	..	..	54
Huntington Beach	17	17	..	..	9,147
Kern Front	5	5	..	..	765
Long Beach	4	4	..	..	3,507
Midway	13	13	..	..	1,395
Poso Creek	2	1	..	1	255
Santa Fe Springs	2	2	..	..	460
Seal Beach	9	9	..	..	14,104
Sunset	4	4	..	..	1,775
Torrance	1	1	..	..	40
Ventura Avenue	3	3	..	..	921
Wildcats	5	3	..	2	40
Totals	82	79	..	3	42,840

MOUNTAIN STATES

Wyoming	32	26	2	4	25,157
Montana	24	22	..	2	5,040
Colorado	9	4	..	5	5,640
New Mexico	4	4	..	..	225
Totals	69	56	2	11	36,062

COLORADO

Florence	2	1	..	1	140
Wellington Dome	1	1	..	..	500
Iles	1	1	..	..	3,000
Moffatt	2	..	..	2	.....
Yuma County	1	..	..	1	.....
Wildcats	2	1	..	1	2,000
Totals	9	4	..	5	5,640

NEW MEXICO

Artesia	2	2	..	..	135
Eddy County	2	2	..	..	90
Rattlesnake	..	..	..	..	.....
San Juan County	..	..	..	..	....
Totals	4	4	..	..	225

MONTANA

Kevin-Sunburst	23	22	..	1	5,040
Cat Creek	1	..	..	1	.....
Totals	24	22	..	2	5,040

WYOMING

Big Muddy	3	3	..	..	107
Lost Soldier	1	1	..	..	225
La Barge	3	2	1	..	175
Mahoney	..	..	..	..	.....
Fremont County	1	..	..	1	.....
Oregon Basin	1	1	..	..	1,000
Parco	..	..	..	..	.....
Pine Mountain	..	..	..	..	.....
Rock Creek	..	..	..	..	.....
Salt Creek	20	19	1	..	23,655
Sand Draw	..	..	..	..	.....
Wertz	..	..	..	..	.....
Wildcats	3	..	..	3	.....
Totals	32	26	2	4	25,157

KANSAS

Butler	26	15	..	11	1,685
Chase	5	1	3	1	25
Coffey	3	2	..	1	65
Cowley	19	11	5	3	1,317
Chautauqua	1	..	..	1	..
Dickinson	1	..	..	1	..
Elk	16	11	1	4	1,170
Greenwood	45	24	5	16	1,825
Lyon	5	2	..	3	50
Marion	5	1	..	4	225
Morris	1	..	1	..	..
Rice	3	1	..	2	110
Russell	3	2	..	1	260
Stafford	1	..	..	1	..
Sumner	14	11	..	3	6,295
Saline	1	..	..	1	..
Sedgwick	1	..	..	1	..
Woodson	1	1	..	..	..
Totals	151	82	15	54	13,027

KANSAS PRODUCTION SUMMARY APRIL

	Daily Av.	Total
Florence-Covert	1,900	57,000
Peabody-Elbing	3,850	115,500
Eldorado-Towanda	13,240	397,200
Augusta-Fox Bush	4,600	138,000
Rainbow Bend	2,420	72,600
Russell	3,230	96,900
Greenwood County	40,850	1,225,500
Churchill	16,440	493,200
Other fields	29,140	874,200
Total		3,470,100

OKLAHOMA

Beckham	1	..	..	1	....
Carter	18	14	..	4	2,578
Caddo	3	3	..	..	225
Commanche	7	1	..	6	5
Creek	70	34	3	33	3,697
Garvin	2	..	..	2	....
Garfield	7	5	..	2	535
Grady	36	22	8	6	3,180
Hughes	6	2	1	3	415
Jefferson	1	1	..	..	10
Kay	32	16	6	10	5,270
Logan	1	..	..	1	..
Lincoln	4	1	..	3	25
Marshall	1	..	..	1	..
Muskogee	14	4	1	9	205
Noble	1	..	..	1	..
Okfuskee	15	8	1	6	1,017
Okmulgee	19	7	7	5	483
Osage	55	34	9	12	3,722
Pawnee	8	7	..	1	225
Payne	4	3	..	1	225
Pottawatomie	9	5	0	4	13,537
Seminole	97	74	1	22	125,477
Stephens	24	11	2	11	1,390
Tillman	2	..	..	2	..
Tulsa	16	5	1	10	378
Wagoner	6	2	..	4	216
Totals	459	259	40	160	149,278

(Continued on page 100)

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OKLAHOMA PRODUCTION SUMMARY
APRIL

	Daily Av.	Total
North Braman	6,450	193,500
South Braman	3,700	111,000
Blackwell	3,950	118,500
Hubbard	7,250	217,500
Thomas	1,520	45,600
Tonkawa	23,390	701,700
Garber	17,140	514,200
Burbank	44,300	1,329,000
Osage (outside Burbank)	35,170	1,055,100
Watchorn	2,660	79,800
Cushing	21,230	636,900
Yale-Jennings	11,870	356,100
Davenport	3,500	105,000
Bristow-Slick	27,270	818,100
North Okmulgee	17,250	517,500
Lyons-Deaner	4,400	132,000
Stroud	1,440	43,200
Cromwell	13,370	401,100
Papoose	7,120	213,600
Wewoka	17,720	531,600
Duncan District	6,930	207,900
Earlsboro	39,270	1,178,100
Graham	8,240	247,200
Fox	1,810	54,300
Healdton	14,500	435,000
Seminole	289,270	8,678,100
Hewitt	9,930	297,900
Scholem-Alechem	14,710	441,300
Other fields	64,190	1,925,700
Total		21,586,500

ARKANSAS

Field—	Completions	Producers	Gas Wells	Failures	Initial Prod.	Monthly Prod.
Bradley	..	..	..	..	.....	.....
El Dorado	..	..	..	..	.....	184,500
Nevada	2	2	..	..	70	44,250
Lisbon	..	..	..	..	.....	133,860
Smackover	20	12	7	1	826	3,118,500
Stephens	..	..	..	..	.....	51,250
Urbana-Lawson	..	..	..	..	.....	.....
Others	..	..	..	..	.....	4,500
Wildcats	15	..	..	15	.....	.....
Totals	37	14	7	16	1,526	3,536,860

LOUISIANA

Bellevue	..	..	..	..	.....	48,360
Bossier Par.	3	2	1	..	1,550	.....
Caddo Par.	13	11	2	..	3,015	443,610
Cotton Vall'y	..	..	..	..	.....	181,860
De Soto-Red River	3	3	..	..	200	129,000
Elm Grove	..	..	..	..	.....	18,750
Haynesville	..	..	..	..	.....	235,860
Homer	..	..	..	..	.....	157,500
La Salle Par.	1	1	..	..	200	.....
Monroe	..	..	..	..	.....	.....
Ouachita Par	3	2	1	..	35	.....
Shongaloo	..	..	..	..	.....	.....
Richland Par.	3	1	2	..	12	.....
Spring Hill	..	..	..	..	.....	.....
Union Par.	1	1	..	..	16	.....
Urania	..	..	..	..	.....	331,860
Webster Par	3	1	2	..	80	.....
Wildcats	38	..	..	38	.....	.....
Totals	68	22	8	38	5,108	1,546,800
La. Gulf Cst	18	12	..	6	13,940	533,420
Louisiana Tl	86	34	8	44	19,048	2,080,220

LOUISIANA GULF COAST

Eagle Point	..	..	..	..	.....	.....
Edgerly	1	1	..	..	200	3,260
Evangeline	1	1	..	..	150	27,750
Lockport	7	6	..	1	12,700	245,610
Starks Dist.	..	..	..	..	.....	.....
Sweet Lake	..	..	..	..	.....	.....
Vinton	5	3	..	2	850	166,800
Others	..	..	..	..	.....	90,000
Wildcats	4	1	..	3	40	.....
Totals	18	12	..	6	13,940	533,420

TEXAS

N. Central	426	274	19	133	66,771	6,727,060
Central and W. Texas	316	192	8	116	90,413	5,106,160
E. Central	10	1	..	9	90	1,256,940
Gulf Coast	68	50	..	18	40,264	4,121,880
S. W. Texas	22	12	10	..	620	1,112,970
East Texas	5	..	1	4	.....	.....
Totals	847	529	38	280	198,158	18,325,010

GULF COAST

Field—	Completions	Producers	Gas Wells	Failures	Initial Prod.	Monthly Prod.
Barbers Hill	1	1	..	..	1,200	.....
Batson	4	4	..	..	70	42,000
Big Creek	2	2	..	..	6,871	147,000
Blue Ridge	3	3	..	..	1,475	89,610
Boling	1	1	..	..	600	64,860
Damon Md	..	..	..	..	.....	28,500
Goose Creek	5	2	..	3	135	265,860
High Island	3	2	..	1	685	.....
Hull	6	6	..	..	6,470	522,360
Humble	..	..	..	..	.....	114,750
Nash Dome	1	1	..	..	350	.....
Orange	8	7	..	1	2,577	164,610
Pierce Jct.	7	7	..	..	7,975	230,610
Saratoga	2	2	..	..	11	34,500
Sour Lake	4	3	..	1	270	148,500
South Liberty	3	2	..	1	685	106,860
Spindle Top	7	6	..	1	10,890	1,671,360
W. Columbia	1	1	..	..	.....	306,000
Others	..	..	..	..	.....	184,500
Wildcats	10	..	..	10	.....	.....
Totals	68	50	..	18	40,264	4,121,880

NORTH TEXAS

Archer Co.	80	40	..	40	3,691	901,500
Baylor Co.	..	..	..	..	....	3,000
Burkburnett	8	5	..	3	245	396,000
Carson Co.	22	20	2	..	10,225*	265,110
Clay Co.	9	3	1	5	75†	2,400
Cooke Co.	26	18	1	7	1,770†	.....
Electra	24	14	..	10	469	433,110
Gray Co.	13	11	2	..	1,247§	246,000
Hutchinson Co.	74	69	4	1	30,795¶	3,082,860
Jack Co.	8	5	..	3	140	16,500
K-M-A and Iowa Park	20	8	..	12	338	123,000
Montague Co.	28	21	1	6	740‖	412,860
So. Vernon Dist.	..	28	..	5	2,116	406,500
Throckmorton Co.	13	7	..	6	2,500	117,610
Wheeler Co.	17	10	5	2	4,610x	81,000
Young Co.	34	20	1	13	7,810y	238,110
Others	..	..	..	..	....	1,500
Wildcats	22	..	2	20	....z	.....
Totals	426	274	19	133	66,771	6,727,060

*Includes 50,000,000 feet gas.
†Includes 1,000,000 feet gas.
‡Includes 6,250,000 feet gas.
§Includes 40,500,000 feet gas.
¶Includes 290,000,000 feet gas.
‖Includes 40,000,000 feet gas.
xIncludes 85,000,000 feet gas.
yIncludes 10,000,000 feet gas.
zIncludes 16,000,000 feet gas.

CENTRAL AND WEST TEXAS

Big Lake	9	6	..	3	775	818,610
Brown Co.	116	74	4	38	23,155*	960,750
Callahan Co.	14	4	1	9	520†	143,110
Coleman Co.	5	1	2	2	50‡	48,750
Crane Co.	33	32	..	1	44,395	1,735,110
Crockett Co.	..	..	..	..	....	36,360
Eastland Co.	17	10	..	7	4,918	198,750
Howard Co.	19	18	..	1	1,075§	67,110
Jones Co.	4	4	..	..	885	84,360
Mitchell Co.	4	3	..	1	200	122,250
Palo Pinto Co.	2	2	..	..	125	60,360
Pecos Co.	1	1	..	..	1,090	103,500
Shackelford Co.	41	16	1	24	686¶	410,640
Stephens Co.	4	2	..	2	140‖	285,750
Upton Co.	16	15	..	1	6,879	.....
Others	..	..	..	..	....	30,750
Wildcats	31	4	..	27	5,520	....
Totals	316	192	8	116	90,413	5,106,160

*Includes 30,500,000 feet gas.
†Includes 2,000,000 feet gas.
‡Includes 21,750,000 feet gas.
§Includes 3,000,000 feet gas.
¶Includes 16,000,000 feet gas.
‖Includes 1,500,000 feet gas.

EAST CENTRAL TEXAS

Corsicana-Powell	1	1	..	..	90	582,360
Currie	..	..	..	..	....	18,750
Mexia	1	..	..	1	....	338,619
Nigger Creek	..	..	..	..	....	175,500
Richland	..	..	..	..	....	28,110
Wortham	..	..	..	..	....	113,610
Wildcats	8	..	..	8	....	.....
Totals	10	1	..	9	90	1,256,940

SOUTHWEST TEXAS

Field—	Completions	Producers	Gas Wells	Failures	Initial Prod.	Monthly Prod.
Bexar County	1	1	..	..	2	.....
Duval Co.	8	1	7	..	250	1,500
Kleberg Co.	..	..	..	..	.....	.....
Laredo Dist.	10	7	3	..	213	447,000
Luling	3	3	..	..	155	541,500
Lytton Sps.	..	..	..	..	.....	67,860
Medina Co.	..	..	..	..	.....	.....
Somerset	..	..	..	..	.....	36,360
Others*	..	..	..	..	.....	18,750
Wildcats	..	..	..	..	.....	.....
Totals	22	12	10	..	620	1,112,970

*Includes Medina and Kleberg Counties.

EAST TEXAS

Harrison County	1	..	1	..		
Wildcats	4	..	..	4	.....	
Totals	5	..	1	4	.....	

Tulsa Company Busy on Pipe Lines

Dallas, Texas.—Work on the Amarillo-Comyn line of the Humble Pipe Line Company has been completed by the Oklahoma Contracting Company with general offices here and a branch office in Tulsa. This line is about 325 miles long and is of 10-inch pipe. T. R. Jones is president of the Oklahoma Contracting Company and H. A. Gump, both of Dallas, is secretary and treasurer. Both men have had wide experience in pipe line construction work and enjoy an extensive acquaintance.

The Oklahoma Contracting Company now is commencing work on the new McCamey to Corpus Christi line which they expect to have completed around September 1. This line will be approximately 400 miles long and will be of combination 10 and 12-inch pipe.

The 18-inch gas line from Quanah to Shamrock will be completed by the Oklahoma Contracting Company within the next 30 days. This line is for the Lone Star Gas Company.

The Oklahoma Contracting Company also has formed a welding company known as the Weldaline Company with general offices in the Thomas Building in Dallas where are located the general headquarters of both companies. C. J. Murray is manager of the Weldaline Company.

Pipe Company Located in New Offices

Tulsa.—General offices of the Tulsa Pipe and Supply Company, Inc., in Tulsa now are located at 306-307-308 Tulsa Trust Building. Harry Stekoll of Tulsa is president of the company and enjoys a wide acquaintance among oil and supply men.

The Tulsa Pipe and Supply Company, Inc., also has established a new pipe yard and warehouse in the East Tulsa industrial district. This property is located along the Frisco railroad just south of Pine Street crossing. Ample trackage facilities are available for the expedious handling of both new and used pipe.

The company also maintains a branch yard and warehouse at Borger, Texas. This shop is maintained to meet the needs of the company's business in that section.

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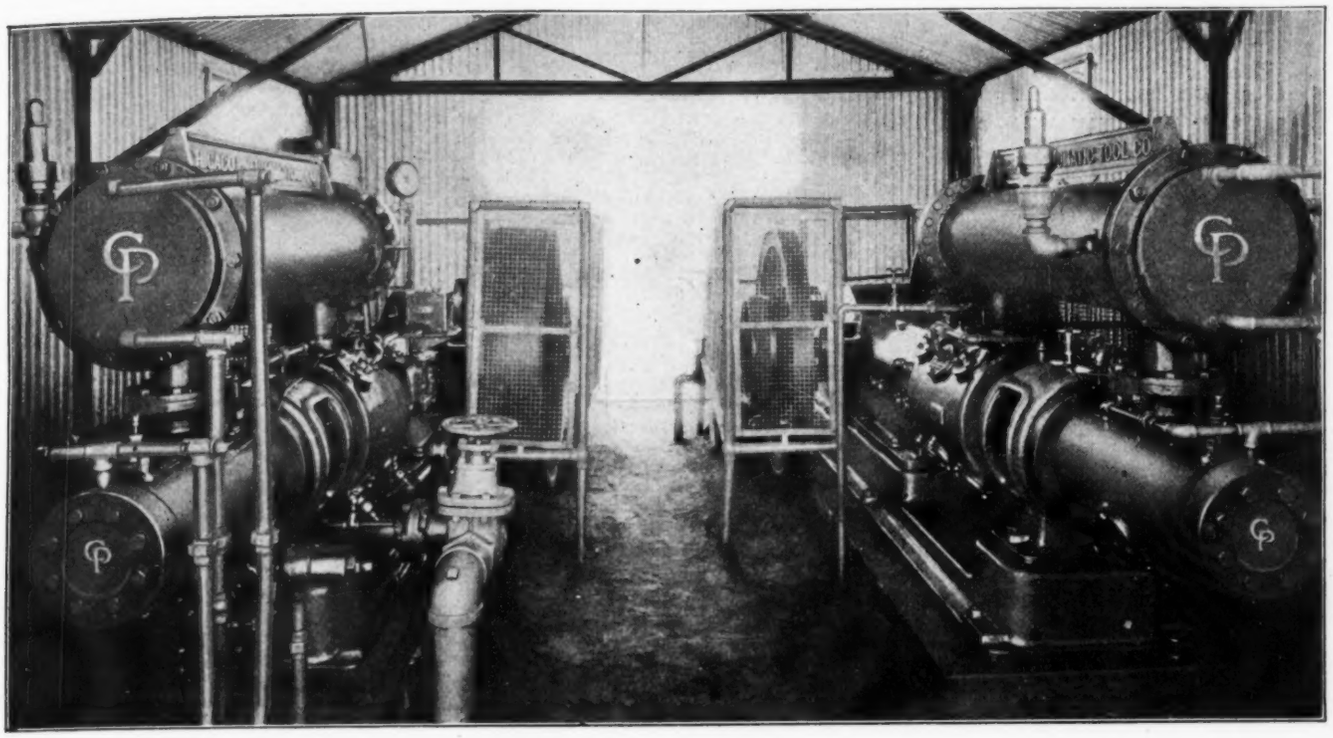

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YOU can secure a CP Air Compressor to meet any oil-field requirement. There are more than 500 types and sizes, all thoroughly proven and powered by steam, oil, gas, belt or electric motor, in either stationary, semi-portable or full portable units. A wide variety of cylinder sizes are available, interchangeable on a given frame, (protecting you under the constantly changing operating conditions), are stocked at convenient points and are quickly available—that is one of the reasons why CP's are so extensively used.

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The above installation is but one of the many CP plants in the Garber field, where encroachment of water makes swabbing difficult and extremely expensive—gas lift is effective and economical. The two CP type N-CTB Air Compressors shown above have reduced pumping costs 47% and materially increased production.

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CHICAGO PNEUMATIC

Depend upon that Name

WILDCATS

(Continued from page 94)

TEXAS GULF COAST

Completions

Brazoria—		
Roxana, Allen 3	*	5837
Poole 1	*	836
Fort Bend—		
Sun Co., Farmer 2	*	2627
Jefferson—		
Rio Bravo, T. & N. O. 101	*	4020
Edumund Tstee, Port Acres 1	*	3528
Hardin—		
Texas Co., Le Jarza 3	*	4930

Austin (Raccoon Bend)—Humble's Bellville School 1, dr 2865 ft, shale; Reese 2, dr 2366 ft, gumbo. Hickory Mound—R. E. Graves' Cleveland 1, wsh over 4-inch dr stem 981 ft. Bellville—Mewis et al's Mewis 1, dr 855 ft, gumbo and bldrs.

Brazoria (Allen dome)—Roxana's Allen Bernard River 1, dr 5126 ft, shale. Clemens dome—Clemens 4, dr 4465 ft, sand and shale; Pabst 2-A, dr 4998 ft, sand and shale; Bell 1, moving in rig. Anchor—Staley et al's Golver 1, dr 844 ft gumbo. Stratton Ridge—Gulf's Perry 2, dr 2525 ft, gumbo. Associated's Seaburn 1, dr 3526 ft, rock. Pure-Humphreys' Armstrong 1, dr 3408 ft, gumbo.

Fort Bend (Long Point)— Gulf's Trone 2, dr 1060 ft, lime rock; Beard 4, dr 2965 ft, soft sand; Wolfe 2, dr 868 ft, lime and sulphur; Davis 25, lcn.

Goliad—Houston Oil Co.'s Pettus 3, 10 mi. w Goliad, dr 3586 ft, sand; Parks 2, 8 mi e Goliad, sdtrk 6-inch dr stem 1235 ft from td 3747 ft.

Hardin (Batson)—Texas Co.'s Sour Lake-Homestake Oil Co. 1, dr 2070 ft, shale.

Harris—P. S. Griffith's Fee 2, 12 mi n Houston, dr 3185 ft, gumbo. Humble's Warren 1, Hockley, dr 1710 ft, shale and lime. Atlantic-Simms' Burt-Griffith 1, 3 mi n Humble, dr 3925 ft, gumbo.

Jefferson—Gulf's Bordages 3, Fannette, dr 4824 ft. Houston Oil Co.'s Fitzhugh 1, Big Hill, dr 1660 ft, sandy shale. Spindle Top—Texas Co.'s Garrick 1, dr 3500 ft, gumbo and lime. J. O. Davis' Gladys 1, dr 5400 ft, gumbo. Hines Bros.' Roberts 2, dr 4279 ft, gumbo.

Matagorda (Hawkinsville dome)—Gulf's Craig 8, dr 4355 ft, shale and lime; Parkinson 2, dr 1472 ft, lime and gyp; Sanborn 3, dr 2472 ft, gumbo.

Montgomery—Brain et al's Fitch 1, 3 mi e Spring, sdtk 4-inch dr stem 750 ft from td 2400 ft.

Orange—J. T. Miller Drlg Co.'s Brown- Oculltree 1, Gum Island, rigging up. W. C. Wells' Stark 2, Adams Bayou, dr 1680 ft, gumbo.

Washington (Brenham)—C. A. DeWare's Lehmann 1, sd 2702 ft, shale and bldrs; Schurenburg 1, sd 1539 ft, rock. Pratt-Hewitt's Konieczny 2, dr 2435 ft, gumbo.

Wharton—Texas Co.'s Felder 3, Boling, dr 4622 ft, hard sand.

SOUTH LOUISIANA

Completions

Cameron—		
Union Sulphur Co., Little 1	*	1839
St. Martins—		
Rycade, Atchafalaya 1	*	3790

Calcasieu — Union Sulphur Co.'s Fee 720, Sulphur, sd 4518, ft, lime rock. Dr. Hintze's Beckenstein 1, Sulphur, dr 4260 ft, sand. Border Research Corp.'s Calcasieu Lake 1, sd 4505 ft, gbo. Gulf's Lutcher-Moore 5, Starks dome, dr 4247 ft, gbo and lime. Industrial Lbr. Co. 1, Starks dome, dr 3067, sandy shale.

Cameron—Pure's Sweet Lake 4, Sweet Lake, sd for repairs, 300 ft, gravel; Sweet Lake 5, Sweet Lake, dr 1900 ft gbo.

Hackberry — Yount-Lee's State Land 4, dr 3005 ft, sandy shale; School Land 6, dr 5004 ft, rock; Gulf Land 10, 18 ft oil sand, 3418 ft, will test. Border Research Corp.'s Mallard Bay 1, sd 2690 ft; Sabine Lake 1, sd.

Evangeline — Texas Co.'s Guillory 1, Pine Prairie, dr 4782 ft, rock.

Jeff Davis—Estropal Oil Co.'s Le Doux 1, dr 2913 ft, sand rock. Fred Getty's Lacasine Irri 1, sd 3515 ft.

Iberia — Gulf's State Z-2, sd high water. Broussard 1, sd 3193 ft, high water. Calcasieu Oil Co.'s Schwing A-1, sd 1250 ft, broken formation. Border Research Corp.'s Vermillion Bay 1, sd 1004 ft, gbo.

St. Mary — Border Research Corp.'s Grand Lake 1, sd 4519 ft; West Cote Blanche 1, sd high water.

SOUTHWEST TEXAS

Bexar County—McClanahan's Sodrok 4, going on pump; Sodrok 5, loc.

Caldwell County—Fred Adams et al's Ellison 1, dr. United North & South's Kelly 1, dr; Tiller 1, dr. Van Keuren Oil Co.'s Ridout 1, swabbing.

Duval County—Associated's Sutherland 1, dr. Barkley, Morgan & Gulf's King-Harper 3, dr. Humble's Singer 11, dr; Singer 12, dr; Walsh 7, dr; Welder-Woods 2, dr. Magnolia's Spear 1, dr. Benavides 2, dr. Geo. Marshall's 1, sec. 458, testing. Maruer & Duggan's Hoffman 1, dr. G. G. Pickett's 1, sur. 230, dr. Schlesinger, O'Bryne & Schoolfield 1, bailing. Edward St. Alban's Puig 2, dr.

Gonzales County—Martin Oil Co.'s Preston 1, dr. Krechival, R. J. et al's Billings 2, dr. Alamo Drilling Co.'s Kenedy 1, dr. Pat Armstrong's Lacey 1, dr. Carl Switzer's Zerr 1, dr. California-Medina Co.'s Rothe 1, no report. Fennell & Williams' Fohn 2, dr 1350 ft. Gibson & Walsh's Ottem 1, dr J. A. Swaye's Oeffinger 1, dr. Whelles & Peters' Berger 1, dr.

Zapata County—Buffalo-Erie's Martinez 3, dr. Hill & Associates' Villa Grant 1, dr. O. W. Killam's Lange 1, dr. Langford-Duke's Charco 1, Rendendo Grant, dr; Martinez 1, dr. Howard Staggs et al' Hinnants 1, dr. Mission Oil Co.'s Slator 1, dr. Mag. Pet. Co.'s Jennings 5, dr; Cuellar 4, dr. Texas Company's Jennings 5, no report.

SOUTHERN CALIFORNIA

Completion

Bandini—		
Pan-American Pet. Co.'s Bandini well	*	5815

Boyle Heights—Haskell M. Green's P. A. S. F. 1, sd 1400 ft.

Claremont—Claremont Oil & Gas Co.'s 1, sd sd 1130 ft.

Coyote-West—Bastanchury Ranch Co.'s 1, dr 4886 ft.

Davidson City—California Well Drlg Co.'s 1, dr 5520 ft.

Downey—C. F. Ackers' Downey 1, sd 367 ft.

El Segundo — Rider Synd.'s 1, sd 2300 ft. Southern Cal. Drlg. Co.'s 1, dr 4864 ft.

Gardena—Circle Oil & Gas Co.'s 1, dr 3760 ft.

Hawthorne—Winwell Oil Co.'s 1, prep to abn 5586 ft.

Lancaster—John B. Harding's 1, co 1860 ft.

Maywood—Magnolia Pet. Synd.'s 1, sd 4442 ft.

Newhall-Saugus—Geo. W. Johnson's Wickham 1, stg 2840 ft. W. W. Stabler's Castaic 1, stg 3408 ft. Fisher & Co.'s 1, rig.

Palso Verdes—Petroleum Securities' Weston 1, dr 2250 ft.

Placentia—Shell Co.'s Allec 1, setting boilers.

Potrero — Associated's Cypress 1, stg cmt 4450 ft. California-Eastern's Cypress 1, dr 2600 ft. General's Smith 1, sd 4502 ft.

Rivera—Geo. F. Getty's Tubbs 1, building steel rig.

San Fernando—Standard's University 1, prep to abn 5989 ft. Shell Co.'s Mission 1, bldg road.

San Jose Hills—Bardeen Oil Co.'s 3, dr 2000 ft. D. & B. Oil Co.'s Amar 1, fsh 3680 ft.

San Juan Capistrano—Norswing & Halbertson's 1, sd 4060 ft. O. K. Carr's 1, sd 2414 ft.

Sunset Beach—General's Lomita 1, dr 5142 ft.

Telegraph Canyon—Quadra Pet. Co.'s MJM 1, sd 4210 ft.

Riverside County—Corona Oil & Gas Co.'s 1, sd 1550 ft. Four Drillers Co.'s 1, bldg rig. Spindletop Oil Synd.'s 1, sd 2650 ft. Trabuco Oil Co.'s 1, dr 2126 ft.

San Bernardino County — Burgess-Goodale's Riggins Com. 1, sd 4110 ft. Como Oil Co.'s Cajon 1, stg 1380 ft. Colton Terrace Oil Co.'s 1, stg 1320 ft. Del Rosa Oil Co.'s 2, stg 750 ft. H. & P. Oil Co.'s Ranger 1, dr 2112 ft. McCarty 1, dr 1312 Western Pacific Oil Co.'s 3, fsh 2900 ft.

San Diego County — Cardiff Oil Corp.'s Turner 1, prep to make test 2800 ft. Oceanside Oil Co.'s Dunn 1, sd 3210 ft. Southern Oil & Gas Co.'s Randall 1, dr 1780 ft. Torrey Pines Oil Co.'s McGregor 1, sd 478 ft.

NORTHERN CALIFORNIA

COMPLETIONS

Tulare County—		
J. W. Grafford, 1	*	2530
Ozena Oil Co., test	*	2300
Sunset—		
Bell-Wrightsman's 1,	5	5335

Ducor Drilling Co.'s 1, fsh 4161 ft. Birch Oil Co.'s 1, rig. Wm. C. Resser's 1, sd 1815 ft.

San Mateo County—Shell Co.'s 1, dr 3060 ft.

Sonoma County—Shell Co.'s Murphy 1, dr 4989 ft.

Kern County—Antelope Plains—H. H. Davis' 1, rep rig 3120 ft.

Belridge — Standard's 1, rigging rotary. Zurich Oil Co.'s 1, dr 360 ft.

Buttonwillow—Milham Explo. Co.'s 1, dr 4617 ft; Salisbury 7, reaming 1220 ft.

Comanche Point—Kern 29 Oil Co.'s 1, sd 2440 ft.

Delano — Chanslor-Canfield-Midway's 1 dr 1578 ft.

Devils Den—Devils Den Prod. Co.'s 1 dr. 1260 ft. Marathon Oil Co.'s 1, stg 4390 ft. Midway-Northern Oil Co.'s 1, dr 475 ft. R. H. Sayers' 1, dr 886 ft.

Elk Hills—McAdams Pet. Co.'s Elk Hills, temp. susp. 4758 ft.

Gould Hills—A. J. Bomke's 2, sd 610 ft. Carolina-Western's 1, sor 1246 ft. Mendocino-Midway's 1, sd 2930 ft. Rhoads Oil Co.'s 1, stg 1485 ft.

McKittrick—Abbott Pet. Co.'s 1 sd 1991 ft. Lacy-Esper Pet. Co.'s 1 sd 3260 ft. McKittrick Hills Co.'s 2, dr 3248 ft. Ridge Oil Co.'s 1, reaming 3715 ft.

North Midway—Bolsa Chica Oil Co.'s 1, sd 185 ft.

Shale Hills—Huntington-Hawthorne's 1, sd 600 ft. Nelson & Mountford's 1, cmt 2960 ft. Oildale Oil Co.'s 1, sd 558 ft.

Sunset—Fresno-Sunmaid Oil Co.'s 1, sd 4200 ft. Gore Exploration Co.'s 1, temp. susp. 4334 ft.

Temblor Hills—Fortuna Oil Co.'s 1, stg 2660 ft. Hovey Hills Oil Co.'s 1 sd 2150 ft. Painted Hills Oil Co.'s 1, stg 500 ft.

Tehachapi-Mojave—C. R. Asmussen's 1, stg cmt 1510 ft. Crusaders Oil Co.'s 1, dr 2295 ft. John B. Harding's 1, dr 878 ft.

Upper Kern River—Commerce Oil & Leasing Co.'s 1, sd 2508 ft.

Upper Poso Creek — Dr. Buchner's 1, cor 1065 ft.

Fresno County—Clovis—Fresno-Madera Oil Co.'s 1, idle 3760 ft.

Jacalitos Dome—Marland's 1, dr 4226 ft.

North Coalinga—Potter & Esplin's 1, rig.

Raisin City—Fresno-United Oil Co.'s 1, sd 3961 ft.

Kings County—Kettleman Hills—Milham Exploration Co.'s wilcat, dr 1863 ft. Ahlburg Gasoline Corp.'s 1, rigged. Associated Oil Co.'s Smith 1, sd 2043 ft. Bolsa Chica Oil Co.'s 1, sd 2360 ft. Chanslor-Canfield-Midway's 1, dr 2466 ft. General's 1, fsh 3105 ft. Hugh McPhail's 1, sd 1972 ft. South Coalinga Oil Co.'s 1, sd 2140 ft.

Ventura County—Camarillo — California Pet. Arniel 1, dr 2494 ft.

Casitas—Miley Explo. Co.'s Casitas 2-A, sd 568 ft.

Fillmore—Sespe Oil Co.'s Smith 2, sd 4003 ft.

Hopper Canyon—Hopper Canyon Oil Co.'s 1, sd 5006 ft.

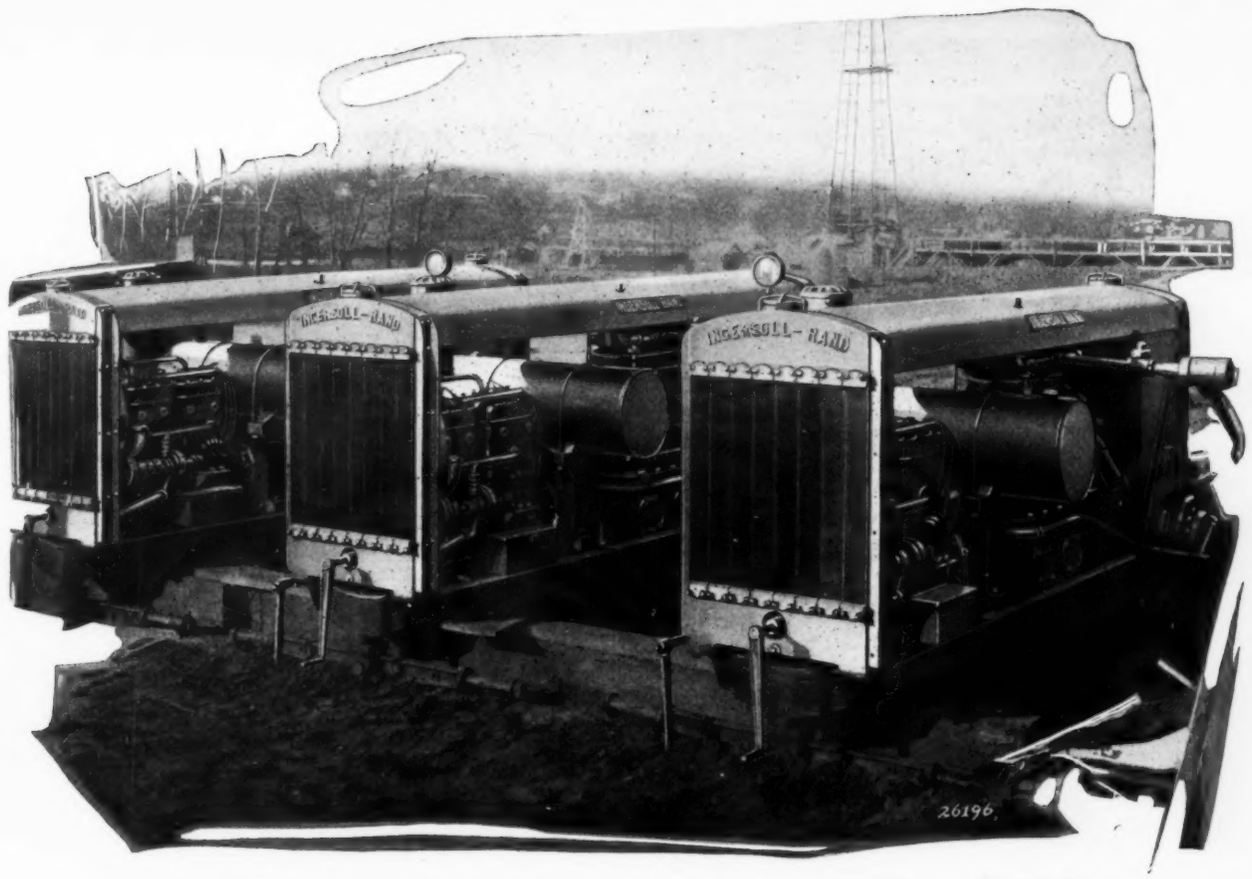
Moorpark—E. A. Parkford's Dabney-Lloyd, 2572 ft. Shell's Berlywood 1, dr. 3016 ft.

Piru—Superior Oil Co.'s Pena 1, dr 3800 ft.

Rincon—Montecito Oil Producers' 1, susp 3200 ft.

Ventura Dist.—Associated's Dabney-Lloyd 1, dr 1810 ft. Chanslor-Canfield-Midway's Hobson 1-B, dr out cmt 3610 ft. Milham Explo. Co.'s Sexton 1, cutting out dr pipe 7092 ft. Rio Grande Oil Co.'s Canet 1, running csg 4842 ft. Star Pet. Co.'s Star-Canet 1, dr 3550 ft.

Santa Barbara County—Channel Oil & Dev



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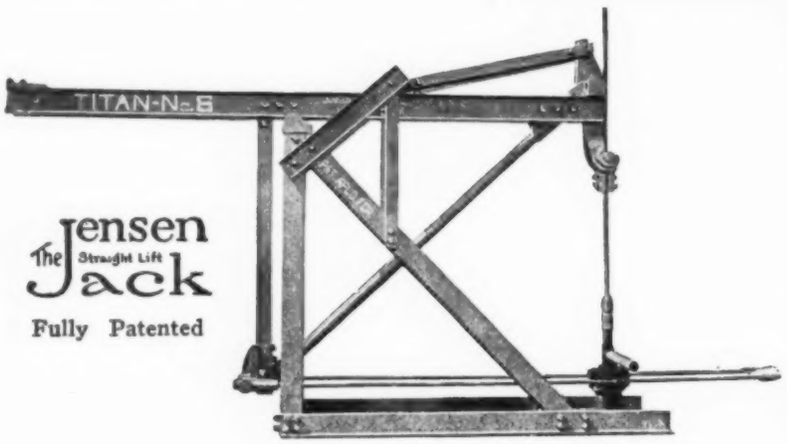

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San Luis Obispo County—Arroyo Grande Pet. Co.'s 1, prep. to abn. 4387 ft. Carlisle Oil Co.'s 1 sd 2597 ft. Indian Dome Oil Co.'s 1, sd 2680 ft. Paso Robles Oil Co.'s 1 sd 1005 ft. Painted Hills Oil Co.'s 1, dr 1142 ft. E. G. Starr's 1, sd 3570 ft. Richfield Oil Co.'s 1, dr 320 ft. Walklin Pet. Co.'s test, fsh 750 ft.

Monterey County—Petroleum Securities Co.'s 1, dr 2176 ft.

MOUNTAIN STATES

WYOMING

Graybeal Oil Synd.'s Graybeal 1, 16-28-80, sd 3155 ft. Prairie's Mahoney 3C, 34-26-88, dr 2735 ft. Carter's Nowood 1, 5-48-90, dr 1840 ft; Billy Creek 2, ne 17-48-82, fsh 4400 ft. Tarrant Synd.'s Steele Creek, ie 17-46-82, sd sd 3392 ft. Producers & Refiners' Tensleep 1, 13-46-89, rig completed; Big Sand Draw 7, 14-32-95, dr 2760 ft; Big Sand Draw 5, 10-32-95, fsh 3415 ft; Ferris 19, 25-26-87, cmt 1880 ft; Garland 2, 24-56-89, sd 2640 ft; Muskrat 1, rig completed; Murphy 1, 8-43-91, fsh 2990 ft. Foreman Oil Co.'s Rawhide 1, 24-26-62, sd 5505 ft. Wellington Oil Co.'s Bear Creek 1, to resume dr, td 2540 ft. Winter Synd.'s Oil Mountain 1, se 17-33-94, to resume dr, td 700 ft. Union's Black Mountain 1B, nw 28-43-91, dr 2707 ft; Black Mountain 1AS, nw 34-43-91, abn 4402 ft; Park County 1T, nw 22-47-101, dr 965 ft; Fremont County 1, ne 15-5-1, abn 4365 ft. Texas Prod. Co.'s Maverick Springs 7, 26-6-101, cmt 1750 ft. Iowa-Wyoming Inv. Co.'s Megown 1, ne 30-1-2, sd 3300 ft. Criterion Oil Co.'s Douglas 1, 5-31-79, sd 3208 ft. Ohio's Rock River 5, 3-19-78, dr 2790 ft; Rock River 12, 2-19-78, fsh 1390 ft; Byron 2, 33-56-99, cmt 3130 ft. Lake Valley Oil Co.'s Lake Valley 1, se 14-20-88, sd. Platte River Drlg. Assn.'s Guernsey 1, nw 12-26-67, dr 2310 ft. Buck Creek Oil Co.'s Ant Hills 1, ne 25-37-63, rig completed. Oil Well Synd.'s Poison Lake 1, ne 17-31-71, rig completed.

COLORADO

Midwest's Rangely 2, 30-2-102, dr 2970 ft. Red Creek Oil Co.'s El Paso County 1, 19-17-67, dr 233 ft. Texas Prod. Co.'s Rangely 2, 31-2-102, dr 3112 ft; Moffat 10, 33-5-91, dr 3802 ft; Tow Creek 1M, 5-6-86, sr 1180 ft. Frank E. Kistler & Co.'s Boulder County 1, 28-2-69, dr 2866 ft. General Pet. Co.'s Montrose 1, 33-1-70, sdtr and redr 4720 ft. Boulder Drlg. Co.'s Boulder County 1, 9-1-70, dr 2414 ft. Foley & Goldworthy's Model 1, 11-30-60, dr 1150 ft. Essok Oil Co.'s Boulder County 1, 5-1-70, cmt 3050 ft. Eureka Oil Co.'s Mesa County 1, sw 24-1-1, dr 1560 ft. Trader Oil Co.'s Saguache County 1, 22-41-10, co 4300 ft. Tutt & Hamlin's Fremont County 1, nw 35-18-70, dr 150 ft. Uncle Joe Oil Co.'s Fremont County 1, 6-47-19, dr 3115 ft. Northeastern Colorado Oil Co.'s Logan County 1, 36-8-55, dr 3106 ft. Repollo Oil Co.'s Boulder County County 1, nw 35-18-70, sd 1600 ft.

NEW MEXICO

Exploration Co.'s Lea County 1, 25-19-35, fsh 866 ft. Hasson Pet. Co.'s Curry County 1, 22-8-36, rig. Henderson-Dexter-Blair's Lea County 1, 34-17-33, dr 4585 ft; Eddy County 1, 9-19-38, dr 2340 ft. Midwest's McKinley County 1, 1-17-9, dr 1730 ft; Quay County 1, 30-8-31, dr 2576 ft. Covert Synd.'s Lea County 1, 15-21-33, sd 3002 ft. W. A. Stone Oil Co.'s Eddy County 1, 25-17-26, dr 1226 ft. Inglefield & Bridges' Lea County 1, 4-17-34, dr 4800 ft. Cap Rock Oil & Gas Co.'s Lea County 1, 11-16-32, dr 1515 ft. Gibson Oil Co.'s Quay County 1, 25-8-32, plugging back to 1360 ft from 1430 ft. Danciger Oil & Ref. Co.'s Eddy County 1, 23-17-27, lcn. Texas Prod. Co.'s Chaves County 1, 29-17-18, dr 3380 ft; Lea County 1L, 5-22-38, lcn; Lea County 1R, 22-26-37, dr 200 ft; Lea County 1J, 4-20-34, wosr. Weathers Synd.'s Curry County 1, 7-25-24, ur 660 ft. Superior Oil Co.'s Eddy County 1, 33-23-28, wosr. Marland Oil Co.'s Eddy County 1, 11-20-30, dr 1578 ft. Kelly Synd.'s Eddy County 1, 27-17-27, dr 1690 ft.

UTAH

Boulder Knoll O. & G. Co.'s Boulder Knoll 1, 17-34-25, dr 1950 ft. Empire Gas & Fuel Co.'s Gibson 1, 6-30-21, dr 2015 ft. Embar Oil Co.'s Moab 1, 34-25-21, dr 3330 ft. Texas Prod. Co.'s Wayne County 1, ne 5-27-14, wosr.

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LOUISIANA

Completions

Company, Well and Location	Initial Production Bbls.	Depth
Bossier Parish—		
Clark & Norton, Ford 1, 32-23-12..	*	3274
La Salle Parish—		
Tunica Pet. Co., L. & A. 23, 9-7-2e	*	2380
Nachitoches Parish—		
Reidheimer et al, Wafer 1, 3-11-8..	*	1585
Three League Oil Co., Long Bros. 1, 34-10-8w	..	....
Rapides Parish—		
Libuse Oil and Gas Co., Voda 1, 14-4-1e	*	2550

Bienville Parish—S. F. Bordon's L. & A. 2, 9-15-7, dr 2347 ft. Kimbrough et al's Cargyle 1, 27-15-8, sd 1550 ft.

Bossier Parish—Doern et al's Thomas 1, 9-22-11, sd 2765 ft. Glassell et al's Gibson-Tiguer 1, 14-21-14, dr 1181 ft. Humble's B. & W. 30, 15-19-11, dr 1990 ft. Magnolia's Dodson 1, 15-23-12, set 10¾-inch at 1216 ft. Palmer Corpn.'s Bossier L. & L. Co. 4, 9-16-11, dr 3079 ft. Ramsey et al's Dodson Est. 1, 16-23-12, dr 450 ft; Robertson 1, 22-23-12, dr 2800 ft. Sligo Synd.'s Jeter 1, 23-17-12, set 15¾-inch at 185 ft. Simms Oil Co.'s Sandidge 2, 5-18-11, dr 2235 ft. C. O. Tate Trustee's Dodson 1, 15-23-12, dk. Texas Co.'s Caplis 14, 24-16-12, wosr 1551 ft. Tubbs et al's Jacobs 1, 26-20-13, dr 2250 ft.

Caddo Parish—Ark. Fuel Oil Co.'s Gayle 8, 30-16-12, dk. Bahan et al's Wilburn 1, 4-17-16, dk; Wilburn 2, 4-17-16, tested sw-show gas 963 ft. Bethany O. & G. Co.'s Offenhauser 1, 1-20-16, fsh 2200 ft. Berston's Murff 6, 12-21-16, wosr 1080 ft. Burford et al's Dambley 1, 2-20-16, waiting fo rds 2115 ft. Bussa & McGoldrick's Becham 6, 28-21-15, wosr 1650 ft. W. D. Chew's Fee 5, 33-21-16, wosr 1847 ft. Dixie Oil Co.'s Robertshaw 81, 13-21-15, plugged back to 3650 ft; Robertshaw 86, 14-21-15, wosr 1736 ft; Robertshaw 87, 14-21-15, set 12-inch at 52 ft; Slattery 10, 27-21-15, dr 3875 ft; Noel A-2, 13-21-15, dr 3720 ft. Double I Oil Co.'s Spell 10, 15-21-16, rig. Empire's Levee Board B-1, 36-21-16, sd 20 ft. J. B. Files Payne 1, 32-23-16, sd 925 ft. Falcon Drlg. Co.'s Schmidt 1, 27-20-15, dk. Gilliam Synd.'s Sellington 1, 27-21-14, sd 2732 ft; Taylor 1, 17-21-14, blg 914 ft. Gulf's Ferry Lake 266, 28-20-16, wosr 2260 ft; Ferry Lake 268, 22-2016, set 10-inch at 120 ft; Tyson 13, 14-21-15, dr 1805 ft; Wemple 5, 14-20-15, set 10-inch at 90 ft. N. W. Handcock's Hampton 3, 15-21-15, wosr 1700 ft. Haynes Bros. Murray 1, 14-21-15, set 12¼-inch a t200 ft. Magnolia's Caddo L. B. 2, 8-20-15, sd 2910 ft; Dillom 16, 24-21 15, cemented bottom of hole 1750 ft; Dillon 18, 24-21-15, wosr 1620 ft; Planters 4, 7-21-14, dr 2346 ft; Robert Shaw 20, 23-21-15, dr 3590 ft. Marshall Natural Gas Co.'s Sharp 1, 22-18-16, dk. H. I. Morgan's Glassell 1,10-20-15, set 6-in at 2140 ft. Ohio's Moodie Fortner 1, 5-22-15, dr 2726 ft; Smith 25, 12-21-15, dr 20 ft. Owl Oil Co.'s Bell 1, 5-17-16, set 12½-in at 100 ft; Wilburn 3, 4-17-16, loc. Shreveport Oil Corpn.'s State 1, 28-21-16, dk; State 2, 27-21-15, sd 1250 ft. Simplex Oil Co.'s Schmidt 2, 15-20-15, rig. Standard's Stiles 180, 33-21-16, set 10-in at 34 ft. Standish Oil Co.'s Allen 11, 23-22-15, wosr 1055 ft. Texas Co.'s C. M. L. 47, 23-21-15, r 3675 ft; Hardy 1, 10-20-16, wosr 2309 ft; Herndon 6, 22-21-15, dk; Hicks & Payne 5, 21-21-15, sd 3144 ft; Long 1, 15-15-12, set 10-in at 130 ft. Thomason et al's Muslow Fee 7, 31-21-15, wosr 2210 ft. Tholl Oil Co.'s Muslow 3, 31-21-15, wosr 1670 ft.

Caldwell Parish—Southern C. O. P. Co.'s Caldwell L. & T. Co. 8, 5-13-5e, set 10-in at 140 ft.

Catahoula Parish—S. D. Hunter's Tensas Delta 2, 21-9n-7e, rig. Lochnager O & G Co.'s Beasley 1, 26-9n-6e, sd 3093 ft.

Clairborne Parish—Magnolia's Lee 1, 16-22-8, dr 3215 ft. Mitchell et al's Wilburn 1, 23-17-7, dr 2300 ft. Triangle Drlg Co.'s Byrd 1, 17-19-5, set 12½-in at 80 ft.

De Soto Parish—Craige et al's Riggs 1, 27-15-13, dr 3300 ft. Dixie Oil Co.'s Jenkins 1,

9-12-11, fsh 5283 ft. Helm & Jarman's Joyner 1, 28-12-11, 3018 ft. Magnolia's Logan 1, 17-10-12, dr 1300 ft. Reliance Drlg Co.'s Jones 1, 8-11-14, (formerly Bond & Evans), rig. W. W. Sebastin Synd's Sebastin 1, 11-10-13, dr 2775 ft. Seip et al's Robertson 1, 18-10-12, sd 300 ft. Texas Co.'s Wemple A-12, 2-12-12, set 6-in at 2395 ft.

Franklin Parish—Barbour Oil Co.'s Baker 1, 3-15-7e, dr 2260 ft. Exploration Oil Co.'s Moore 1, 12-11-6e, junked hole 2120 ft. Harrell & Hall's Duncan 1, 20-13-7e, arr to set 6-in at 2057 ft.

Grant Parish—Phillips et al's Barret 1,(Formerly Holmes 1), 17-9-1e, set 10-in at 100 ft. Rue et al's Elias & Williams 1, 10-7-4w, re-cemented 10-in at 97 ft. M. B. Swope's Fee 1, 18-9-1e, tested sw 1595 ft.

Jackson Parish—Grigsby et al's Adams 1, 22-17-4w, sd 2900 ft. Houseman et al's Norton 1, 34-15-3w, sd 400 ft. Ferguson Trust's Martin 1, 3-15-1e, flowing sw 3475 ft. Louisiana Pet. Co.'s Davis Lbr. Co., 3, 22-16-4w, sd 2301 ft.

La Salle Parish—Louisiana O R Corpn's Tremont B-37, 25-10-1, set 6-in at 1525 ft. Tunica Pet. Co.'s L. & A. 25, 8-8-3e, sd 1856 ft; L. & A. 26, set 10-in at 40 ft. Yeary et al's Urania 5, 8-10-2e, tested sw 1552 ft. Wingfield et al's Gibson 1, 2-9-1e, set 6-in at 1470 ft; Gibson 2, 2-9-1e, dk.

Morehouse Parish—Consolidated Carbon Co.'s White 1, 16-20-4e, sd 1277 ft. Louisiana Dev. Co.'s Fee 38, 21-20-5e, arr to test 2257 ft. Natural Gas Prod. Co.'s Hardy 1, 18-20-5e, set 6-in at 2148 ft; Crossett 20, 21-23-7e, dk. United Carbon Co.'s Townsend 1, 29-21-5e, sd 2112 ft; Atkins 1, 26-20-5e, dk.

Nachitoches Parish—Gulf's Hardaman & Cobbie 1, 9-7-7w, dr 1400 ft. Lawson et al's Clark & Moore 1, 23-5-6w, coring 2615 ft. Ohio Oil Co.'s Thomas 1, 23-13-6w, tested dry 1906 ft. George Sabatier's Ritchie 1, 38-5-4, set 10-in at 105 ft. Tunica Pet. Co.'s L. & A. 24, 35-13-6w, sd 2416 ft. Wenzel et al's Brown 1, 38-10-7w, dk.

Ouachita Parish—Consumers Gas Co.'s Williams 1, 10-19-5e, set 12 in 202 ft. La. Development Co.'s Fee 39, 1-19-4e, sd 2056 ft; Fee 40, 29-20-5e, lcn; Fee 41, 31-20-5e, lcn; Fee 41, 31-20-5e, lcn. La. Gas Prod. Gas Prod Co.'s Dewdrop 5, 20-20-5e, set 6 in. at 2183 ft. Ouachita Nat. Gas Co.'s D'Arbonne 2, 25-19-2e, sd 2780 ft. Peerless Co.'s Moore 3, 29-20-4e, lcn. Palmer Corp.'s Millsap 4, 36-20-4e, set 12½ in. at 198 ft.

Rapides Parish — Hincey et al's Barrow 1, 29-5-2e, sd 2800 ft. Minnesota Oil Corp.'s Wattermack 1, 7-5-3w, coring 2063 ft.

Red River Parish—Alden Oil Co.'s Powell 1, 13-11-10, sd 2301 ft. Gulf's Kennedy 23, 24-13-11, set 6⅝ in. at 2487 ft. Phillips Pet. Co.'s Long Bell 1, 16-12-8, sd 2836 ft.

Richland Parish—Gulf's Rhymes 2, 5-16-6e, dr 2525 ft; Wayne L. & T. Co. 1, 36-17-5e, dr 2870 ft; Seibert 1, 35-17-5e, dk; Seibert 2, 11-16-5e, dr 1868 ft. S. D. Hunter's Seibert 1, 1-16-5e, sd 2358 ft. Helm et al's Tensas 1, 10-14-5e, dk. La. Pet. Co.'s Binion 1, 22-17-6e, sd 2474 ft. Oliver et al's Hatch 1, 2-15-5e, trying to set casing at 2316 ft. Ruston Drlg. Co.'s Earl 1, 5-16-6e, set 8 in at 928 ft. Stovall Drlg. Co.'s Mitchell 1, 20-17-6e, testing 2433 ft. Standard Drlg. Co.'s Delta H. L. Co. 1, 22-16-7e, sd 200 ft. Tex-La Carbon Co.'s Broughton 1, 1-15-6e, flowing hot sw 2602 ft.

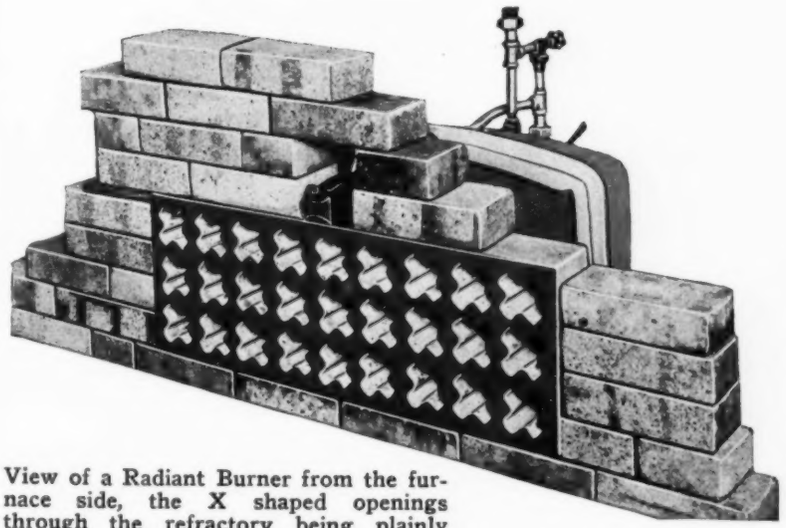
Sabine Parish—Arkansas Fuel Co.'s Logan 2, 28-10-22 rig. Beckman & Freeman's Logan 1, 28-10-12, test ¶5 gas 3206 ft, dr 3270 ft. Emlett et al's Bowman Hicks 5, 11-7-14, pulling liner 4070 ft; Bowman Hicks 7, 11-7-14, sd 2623 ft; Sabine Lbr. Co. 1, 8-7-13, dk. Lewis Clark Pet. Co.'s Wyatt 1, 23-5-12, dr 3798 ft. Louisiana O. R. Corp.'s Logan 1, 28-10-12, rig. Magnolia's L. L. L. Co. 1, 11-6-11, fsh 3262 ft; Hall 1, 33-10-12, set 10 in at 240 ft. Moffitt et al's Moore 1, 5-2-12, set 6⅝ in at 3136 ft. Woodley Pet. Co.'s Robinson 1, 33-10-12, set 10 in. at 225 ft.

Union Parish—Camette et al's Tugwell 1, 21-22-1e, sd 1525 ft. Clark Creek Pet. Co.'s Frost-Johnson 2, 9-23-1e, sd 2307 ft. Interstate Nat. Gas Co.'s Parks 1, 23-20-3e, dk. Rhodes et al's Futch 1, 28-23-2w, sd 2760 ft. Ruston Drlg. Co.'s Gulley 1, 16-20-4e, fsh 2150 ft.

Webster Parish—Davis et al's Lee 1, 22-22 9, sd 2834 ft. S. A. Lane's Roberts 1, 20-19-

Webster Radiant Gas Burners

for Boilers - Oil Stills - Furnaces



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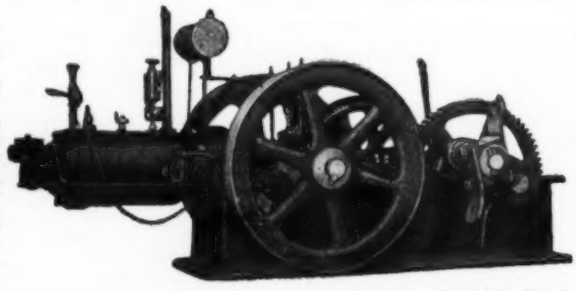

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10, sd 1291 ft. Magnolia's Robbins A-2, 21-21-10, wosr 2560 ft; Cox 3, 23-21-10, set 13¾ in. at 443 ft; Marshall 1, 21-21-10, set 10¾ in. at 329 ft. Northwest Louisiana Gas Co.'s Coyle 1, 21-21-10 dr 3845 ft. Ohio's Bank of Cotton Valley 2, 22-21-10, dk; Bank of Cotton Valley 4, 22-21-10, hole junked at 4573 ft, arr to skid over.

Winn Parish—Cherokee Pet. Co.'s Albritton 1, 27-10-1e, sd 900 ft. Dodge et al's Tremont 1, 35-13-3w, sd 1043 ft. Greer et al's Bodcaw 2, 9-11-4w, sd 50 ft. Humble's L. & L. 21, 29-10-2w, set 10 in. at 50 ft. H. L. Hunt's Tremont 1, 27-10-1e, sd 100 ft. J. C. Long's Milam 1, 26-13-3w, arr to deepen 1450 ft. Ohio's McCarty 1, 5-12-1w, set 10 in. at 42 ft. Rowe et al's Urania 1, 26-11-1e, dk. H. M. Roarke's Southern Mineral Co. 1, 19-11-3w, fsh 300 ft. F. A. Schuman's Albritton 1, 27-10-1e, sd 1518 ft. Standard's Tremont 1, 1-12-2w, dr 3840 ft.

ARKANSAS

Completion

Union County—
Superior Oil Co., Jerry 1, 32-17-13.. * 3022

Ashley County—Rhodes et al's Bledsoe 1, 20-15-7, sd 2554 ft.

Bradley County—Johnson & Adams' Southern Lbr. 1, 12-12-12, sd 2035 ft.

Columbia County—Colquitt et al's Duffer 1, 23-18-19, set 12½-inch at 100 ft. Columbia Synd.'s Whitehead 1, 14-19-23, sd 2350 ft. Haynes et al's Runyon 1, 3-16-21, sd 150 ft. Mitchell et al's Franks 1, 25-19-22, sd 150 ft. Mitchell & Isles' Bodcaw 2, 4-20-21, dr 1650 ft. Mair et al's Gantt 1, 15-17-22, dk. Scott Phillips' Davis L. & I. Co. 2, 6-18-20, sd 21-45 ft. Wingfield et al's Bodcaw 1, 4-20-21, sd 2025 ft.

Clark County—Whelen Oil Co.'s Barrow 1, 35-10-20, tested sw 1338 ft.

Drew County—McClintock et al's Ogle 1, 35-3-5, sd 2550 ft.

Grant County—Jones et al's Meek 1, 5-4-11, sd 400 ft. Shaffer Oil Co.'s Long Bell 1, 36-5-12, dr 2110 ft.

Garland County—Chaywood Oil Co.'s Malvern Lbr. Co. 1, 17-2-17, sd 212 ft.

Hempstead County—Ark. Natural Gas Co.'s Goodlet 1, 34-10-26, dr 125 ft. Burton et al's Garland 1, 23-10-25, sd 2210 ft.

LaFayette County—Ken-Saw Pet. Co.'s Red River Lbr. Co. 2, 5-20-24, sd 2840 ft.

Lincoln County—Pine Prairie O. & G. Co.'s Carter 1, 33-10-6, sd 240 ft.

Little River County—Greeson et al's Waldrip 1, 4-13-31, sd 1740 ft. Grote et al's Allen 1, 2-13-31, sd 2941 ft. Johnson et al's Hawkins 1, 10-11-31, sd 1594 ft.

Miller County—Lenze et al's Dale 2, 28-15-26, r 2765 ft. W. D. Nash's Priest 1, 26-14-27, sd 3850 ft.

Nevada County—Fruen et al's Rhodes 1, 22-12-21, sd 2050 ft. Holmes et al's Wallace 1, 11-14-21, sd 1200 ft. Humble's Bodcaw 4, 9-15-22, tested sw 3596 ft.

Ouachita County—Copenhagen et al's Berg 3, 13-15-17, set 10-inch at 60 ft. J. E. Crosby's Berry 12, 33-15-15, dr 4424 ft. Exchange Oil Co.'s Umsted 3, 4-16-15, rig. A. T. Grayson's Reynolds 1, 21-14-17, set 6-inch at 1744 ft. Gulf's Bennett 11, 33-15-15, set 6⅝-inch at 2351 ft. Humble's Lancaster 1, 15-14-19, set 10-inch at 60 ft. Imperial O. & G. Co.'s McClanahan 9, 6-16-15, sd 2682 ft. Middlesex Oil Corp.'s Shirley 5, 26-15-17, set 10-inch at 41 ft. Magnolia's Gosden 2, 15-15-19, tested sw at 1548 ft; Morgan 1, 7-15-19, dk. Marine Oil Co.'s Umsted 7, 5-16-15, milling out casing 2235 ft; Umsted 11, 5-16-15, wosr 2362 ft. J. D. Reynolds' Chandler 1, 3-14-18, sd 1833 ft. Sutton's Schoolhouse 2, 28-15-16, sd 3060 ft. Unity Pet. Co.'s Umsted A-8, 33-15-15, tested sw 2389 ft.

Union County—C. H. Allison's Howard 1, 8-19-15, sd 15 ft. Brown et al's Slaughter 1, 2-17-16, set 10-inch at 100 ft. Bondurant et al's Garner 1, 8--18-22, r 2635 ft. Cresent Oil Co.'s Saxon 1, 5-16-16, sd 53 ft. Garrett & Modisette's Union Saw Mill 1, 7-18-13, arr to set casing at 3820 ft. W. H. Gilliland's Hodges B-1, 1-16-17, voring 2529 ft. Gulf's Murphy 23, 9-16-15, tested sw and oil 2700 ft; Murphy 44, 3-16-15, arr to test 2375 ft. Humble's Flenniken B-2, 9-16-15, wosr 2776 ft; Pate 10, 10-16-15, set 12½-inch at 400 ft. Imperial O.

& G. Co.'s Murphy 5, 9-16-15, sd 2565 ft; Goodwin 1, 22-17-16, sd 3118 ft. E. M. Jones' Murphy 4, 17-16-15, arr to deepen 2788 ft. Keen & Wolfe's Murphy 5, 9-16-15, blg 2715 ft. Lion O. & R. Co.'s Flenniken A-9, 10-16-15, set 5 3/16-inch at 2391 ft; Lawton A-11, 10-16-15, set 6-inch at 2390 ft; Murphy H-2, 9-16-15, tested oil and sw at 2316 ft; Murphy Land Co. 1, 23-18-18, rig. Lyall et al's Stegall 1, 11-17-13, set 12½-inch at 47 ft. Magnolia's Crawford 2, 8-16-16, wosr 2624 ft; Crawford 3, 8-16-16, dk; Freeman 3, 7-16-16, set 6⅝-inch at 2666 ft; Laney 3, 8-16-16, dk; Laney 4, 8-16-16, dk; Murphy 3, 8-16-15, dk; Murphy 9, 8-16-15, set 8¼-inch at 2652 ft; Wilson 6, 17-16-15, set 8¼-inch at 2642 ft; Wilson 7, 17-16-15, dk; Union Lbr. Co. 1, 21-16-16, set 13⅜-inch at 308 ft. Marine Oil Co.'s Winn Estate B-1, 10-18-13, arr to whipstock 2636 ft; Thompson A-2, 10-18-13, tested sw 2684 ft. J. L. Meek's Milner 2, 15-17-16, rig. Mountz et al's Pratt 6, 8-18-15, dr 1302 ft. National Cons. Pet. Co.'s Fagg 2, 8-16-16, wosr 2639 ft. Natural G. & F. Corpn.'s Bilyew 4, 9-16-15, recementing casing at 2312 ft; Bilyew 8, 9-16-15, set 10-inch at 285 ft. J. J. O'Brien's Saxon 1, 16-16-16, set 12½-inch at 155 ft. Ohio's Crane 1, 1-17-14, drill stem stuck 2712 ft; Murphy 6, 9-16-5, set 4¾-inch at 2689 ft. J. W. Olvey's Simmons 1, 15-18-13, testing 2682 ft. Peer Oil Co.'s Palmer B-1, 9-16-15, coring 2786 ft. S. Richardson et al's Lawton 5, 10-16-15, arr to deepen. Rovenger Oil Corpn.'s Harrell 4, 14-17-16, dk; McClain 1, 4-17-14, tested sw 2649 ft. Simms Oil Co.'s Crawford 1, 4-18-13, set 6⅝-inch at 2638 ft. Stewart et al's Murphy 5, 9-16-15, arr to deepen 2446 ft. Sunny Jim Oil Co.'s Flenniken 4, 9-16-15, dr 2340 ft. Sun Oil Co.'s Hays 3, 3-16-15, cementing off bottom 2293 ft; Thompson 1, 10-18-13, set 12½-inch at 135 ft. Unity Pet. Co.'s Roper 15, 3-16-15, dk. L. M. Vaughan Trustee's Ezell 1, 12-17-15, set 10-inch at 38 ft.

OKLAHOMA

Completion

Company, Well and Location	Initial Production Bbls.	Depth
Quinton Spelter Co., Stringer 1, sw nw 21-7-17	¶4	2555

Beckham County—Magnolia's No. 1, nw 21-9-23, lcn; Beagle 1, sw nw nw 28-9-23, 8-inch 2547 ft.

Canadian County—T. B. Slick's Pazourock 1, sw ne 29-13-5, dr 4580 ft.

Dewey County—McCoy et al's Perfect 1, ne 9-18-5, fsh, ur, 2320 ft.

Harper County—Hoffer's Cooper 1, nw se 14-25-22, 5-inch 4053 ft, sd.

Canadian County—T. B. Slick's Pazourock 1, ne sw ne 24-2-10, dr 1250 ft.

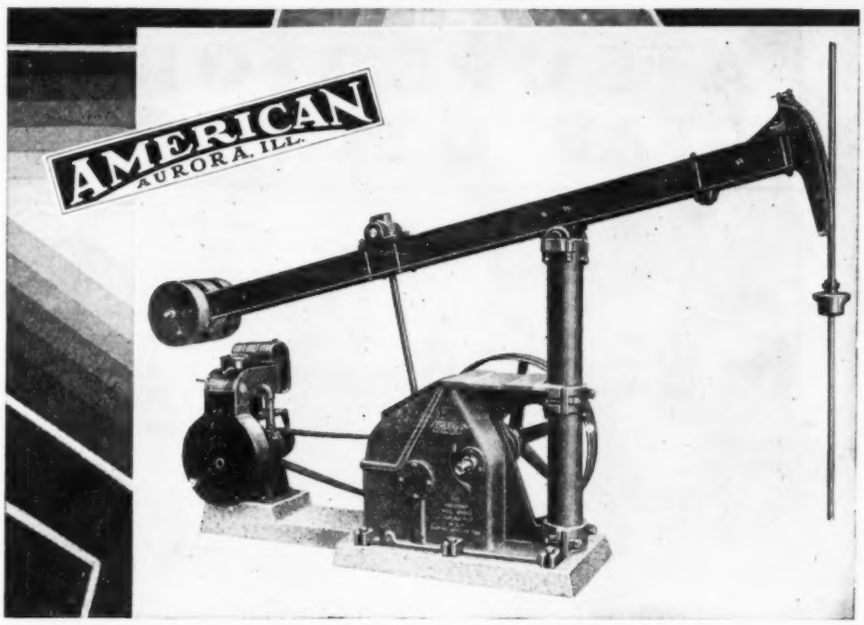
Cleveland County—Mid-Continent Pet. Corp.'s Woodrow 1, sw nw 20-8-1, dr 3247 ft. Magnolia's LeFeure 1, se sw 11-6-1, dr 3010 ft. Wiser's Byrd 1, sw nw 25-6-1, dr 3195 ft. Cromwell et al's Donovan 1, c sw 22-10-2, rig. Gault Brown's Alexander 1, c nw 7-9-1, dr 3300 ft. Sonner's Vandeer 1, ne nw sw 15-7-1, 8-inch 2994 ft.

Cimarron County—Jake Phillips' No. 1, nw 25-6-2, dr 1750 ft. Sinclair's No. 1, nw 22-5-2, dr 600 ft. Ramsey Bros.' State 1, c nw ne 27-5-5, dr 4250 ft; State 1, se 4-5-6, dr 1890 ft. Gladys Belle's Israel 1, sw ne 25-3-7, spd and sd.

Kingfisher County—Kelly et al's Kelly 1, se sw sw 16-19-5, ur 5-inch 4860 ft. Marland's No. 1, sw 12-18-2, 6-inch 4572 ft, sand 4572 ft, sd 4586 ft. Ramsey's Pool 1, se 25-17-5, ru std 3750 ft. Pet. Eng. Core Drlg. Co.'s Campbell 1, c nw se 8-16-7, rig. McKenna et al's Sturgeon 1, nw sw 27-16-6, sd 2115 ft. Galt-Brown's Johnson 1, c nw 26-16-5, dr 600 ft. Slick's Davison 1, sw 23-15-5, rig.

Logan County—Roxana's McCullough 1, sw ne se 30-18-4, 5-inch 5696 ft. Bryan & Emery's No. 1, nw se 33-19-4, show 4040 ft, dr 4100 ft. Carter's Rogers 1, sw ne sw, ur 6-inch 5036 ft. Rex Brown & Bleven's Lovell 1, sw nw 9-18-4, dr 4356 ft. Healdton's Gragg 1, nw se 16-18-4, run 8-inch 3949 ft, stdz. T-P's Jewell 1, nw ne nw 27-18-4, dr 1800 f.; Speaks 1, se nw 33-18-4, dr 2010 ft. Haley's Quair 1, sw se 33-18-3, dr 2600 ft. Slick's Berry 1, sw se 28-17-1, sand 4658-61 ft, oih, sd.

Pottawatomie County—Shaffer et al's Ives 1,



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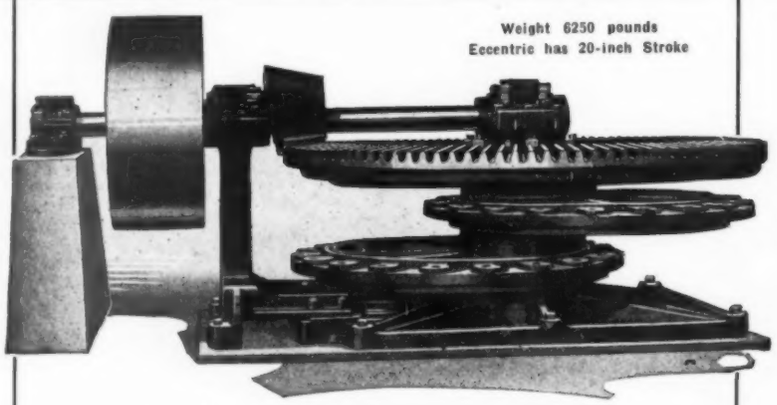

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Pontotoc County—Shaw et al's No. 1, ne sw 33-5-6, dr 1725 ft. Slick's Graham 1, sw se 21-5-6, dr 1000 ft. American O. Co.'s Wray 1, se nw nw 34-5-6, rigging up star mach; Phillips 1, c sw ne 34-5-6, dr 760 ft; Logsdon 1, c ne sw 35-5-6, dr 730 ft. Bowles et al's Lewis 1, c se sw 29-5-5, pd and sd. La. O. & R. Co.'s Gilcrease 1, ne nw ne 20-5-8, dr 1750 ft.

Major County—Randon's Parker 1, ne nw 4-23-16, sd 1150 ft. Franz & Slick's Gray 1, c nw 36-21-11, dr 4615 ft.

Oklahoma County—Cromwell's Walgren 1, c se 21-14-3, dr 1300 ft. Slick et al's Lufkin 1, c ne se 18-13-3, 8-inch 3750 ft. Cromwell's Stone 1, c sw 28-12-4, dr 2900 ft. Ramsey's Dalton 1, c se ne 28-11-5, sd 375 ft. Bailey & Ramsey's Cluddoracy 1, c se se 9-11-1, dr 3900 ft.

Pittsburg County—J. L. Patterson's Smith 1, ne sw se 32-9-16, 2/3 mil ft gas, td 4480 ft. San Bois Gas Co.'s Cohler 1, sw nw 11-7-18, set 8-inch 1420 ft.

Texas County—H. F. Wilcox's Zea 1, sw 29-3-12, ur 6-inch 3620 ft. Haley et al's Ellison 1, nw se se 4-1-12, dr 3750 ft. Three Way Oil Co.'s Price 1, se nw 11-1-18, dr 1900 ft. Connell et al's Tansey 1, se nw 5-1-19, spd and sd.

Tillman County—Oasis Drilling Co.'s Snelly 1, se 13-1-18, sd 1525 ft. P. S. Dean et al's Hollpath 1, ne 6-5-14, lcn. Pearson's Mount 1, sw 3-5-15, lcn.

Woodward County—Ostot Dev. Co.'s Simmons 1, se 32-24-17, sd 10-inch 1510 ft. Sharon Oil Co.'s Elmore 1, sw 25-21-21, sd 2778 ft.

KANSAS

Completions

Company, Well and Location	Initial Production Bbls.	Depth
Lyons County—		
Gashe et al's Stratton 1, nw 32-20-3	*	1915
Reno County—		
Sheldon et al's Magnuson 1, sw ne se 10-23-4	*	4090

Barber County—Vickers et al's Ott 1, sw se 30-32-14, sd 4475 ft, td 4506 ft.

Barton County—Huffins et al's Smith 1, ne se se 17-19-11, fsh 5090 ft.

Butler County—Burford et al's Lambert 1, sw se sy 20-25-7, fsh 5090 ft. Phillips' Boyle 1, c se 25-17-15, dr 2510 ft. Howarth, Howard et al's Clayton 1, se sw 23-25-6, lcn.

Ellis County—R. E. Day's Robbins 1, sw ne ne 14-14-16, rig. Mid-West's Reidel 1, nw sw se 27-13-16, sd 1230 ft.

Kingman County—Pyle et al's Woolsey 1, ne se 20-27-7, dr 2830 ft.

Lyons County—Culp et al's sw se 25-19-10, rep rig 1500 ft. Gashe et al's Stratton 1, nw 32-20-13, dry 1915 ft.

Marion County—Show Bros.' Williams 1, c ne sw 4-17-4, lcn. Ark. Fuel Co.'s Damon 1, se sw 8-17-3, dr 3005 ft.

McPherson County—McLaughlin et al's Hanson 1, ne se 22-18-3, dr 2240 ft.

Reno County—Sheldon et al's Magnuson 1, sw ne se 10-23-4, dry 4090 ft.

Sedgewick County—Marland et al's Schultz 1, nw sw sw 5-28-1, dr 1250 ft.

Seward County—Wilson et al's Sons 1, ne 14-33-33, dr 400 ft.

PERMITS

(Continued from page 96)

Angelina County — Roxana, Houston, Long-Bell 7, S. Stanley sur, sw cor; 8, L. E. Russey sur, 305 ft to n and 1111 ft to e line.

Brown County—M. E. Bishop, Brownwood, Westcott 5, W. H. Irion sur, 300 ft w of 5. L. D. Loofburrow, Brownwood, Copeland 1, B 12, A. White sur, 360 ft to e and 227 ft to n line. Shelby Oil & Gas Co., Box 1499, Tulsa, Ellis 1, s 3, SA&MG sur, 150 ft to n and w lines. J. K. Hughes Dev. Co., Mexia, Shore 13, J. C. Ryan sur, 300 ft s of 12; 14, 300 ft n of 15; 15, 300 ft n of 16; 16, 350 ft n of 17; 17, 150 ft to s and e lines; 19, 300 ft e of 20; 20,

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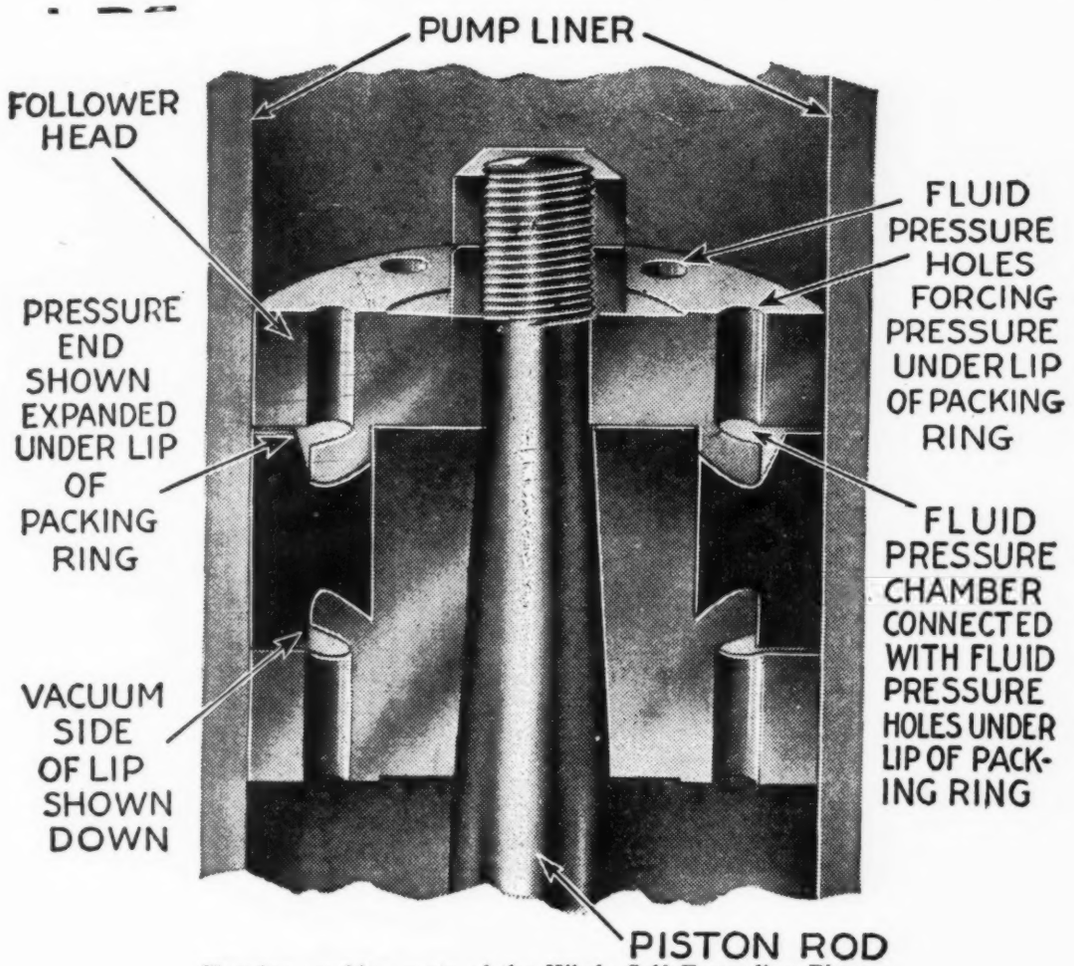
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300 ft e of 21; 21, 300 ft e of 22; 22, 300 ft e of 6; 23, 300 ft ne of 3; 24, 300 ft sw of 8. R. B. Irvin, Brownwood, Wright 1, b 278, K. C. S. L. sur, 750 ft to nw and 150 ft to sw lines. F. H. Ramsey, Rising Star, Henson 3, 147, G. Logan sur, 150 ft to s and e lines. A. L. Greeman, San Antonio, Counts 1, b 10, M. M. Flores sur, 400 ft to s and 3300 ft to e line. E. M. Curry, Rising Star, Pickett 5, G. Logan sur, 150 ft to w and 800 ft to s line. Anderson & Shuks, Rising Star, Bowden 1, H. McPeters sur, 160 ft to n and e lines. Texas Co., Cisco, Lowe 45, 622, G. Stubblefield sur, 400 ft e of 44. Gato Oil Co., Fort Worth, White 1, J. Ude sur, 300 ft to n and 150 ft to w line. Advance Co., Fort Worth, Hart 1, S. Ford surr 20, 150 ft to w and 250 ft to s line. J. K. Hughes, Mexia, Shore 12, J. C. Ryan sur, 150 ft to n and e lines. Martin-Dyson & Co., Coleman, Eubanks 1, s 32, HT&B sur, 150 ft to s and e lines.

Bexar County — Associated, Fort Worth, Ernest 2, A. McSnyder sur 266, 550 ft w of 1; Koehler 2, 49, Rodriguez sur, 550 ft no of 1; Caruthers 15, Wm. Caruthers sur, 604 ft n of 13.

Brazoria County—Roxana, Houston, Pooh 1, T. & W. Alley sur, se cor.

Callahan County—Brannon & Murray, Cisco, Barr 1, b 41, C. C. S. L. sur, 450 ft to e line. Valley Oil Co., Wichita Falls, Ramsey 1, s 31, D&D Asy sur, 150 ft e of center of w line. Baker & Bailey, Cisco, Mobley 1, b 2294, TE&L sur, 630 ft to n and 150 ft to e line. M. G. Cheney et al, Coleman, Wylie 1, 2040, TE&L sur, 1050 ft to e and 1600 ft to s line. Cisco Oil Co., Cisco, Williams 54, 2973, TE&L sur, 325 ft to w and 700 ft to s line. Godley Oil & Gas Co., Dallas, Buchanan 22, b 8, Bayland Asy sur, 750 ft to n and 450 ft to e line. Warren-Hayes Oil Corp., Cisco, Wheeler 1, s 26, D&D Asy sur, 150 ft to s and w lines. Navarro, Houston, Bennett 2, b 99, C. C. S. L. sur, 150 ft to n and w lines. W. C. Mee, Abilene, Hutchinson 1, s 43, D&D Asy sur, 150 ft to n and w lines.

Coleman County—Archie Shaw, Burkett, Burns 30, A. Wickson sur, 750 ft to n and 950 ft to e line. Amerada, Cisco, Harris B 5, s 11, J. Sanders sur, 162, 3305 ft to e and 564 ft to s line; 6, s 1, 2325 ft ne of 6. Monroe Production Co., Coleman, Harris 2, s 63, H. Starnes sur, 600 ft se of 1. Senior Petroleum Co., Braniff Bldg., Oklahoma City, Laughlin 1, S. Perry sur, 630 ft to n and e lines.

Clay County—O. H. Soules, Burkburnett, Landrum 1, b 5, P. C. S. L. sur, 360 ft to n and 150 ft to w line. Empire Holding Corp., City Nat. Bank Bldg., Wichita Falls, Barry 4, 2642, TE&L sur, 300 ft w of 1. Western Oil Corp., Hamilton Bldg., Wichita Falls, Magnolia B 4, s 32 b4, P. C. S. L. sur, 300 ft ne of 1.

Cooke County — Fain-McGaha Oil Corp., Wichita Falls, Vestal 1, BBB&C sur, 150 ft to s and w lines. Sun, Dallas, Hacker 1, T. Scott sur, 162 ft to s and e lines. Homer Chapman Oil Co., Dallas, Montgomery 1, J. B. McClyman sur, 208 ft e of 3.

Crane County—Humble, Wichita Falls, Univ. 2, s 38 b 30, Univ. Lands sur. Simms, Dallas, University A 8, s 39 b 30, Univ. Lands sur, 660 ft w of 4.

Comanche County—Mid-Kansas, Tulsa, Waldrep 1, Wm. De Moss sur, 1184 ft to w and 250 ft to s line. Texas Pacific Coal & Oil Co., Ranger, Ward 1, s 15, E. T. Ry sur, 2420 ft to w and 985 ft to s line.

Cass County—Texas Co., Wichita Falls, Glosson 1, J. Menchen sur, 216 ft to e and 512 ft to s line.

Chambers County—Salt Dome Oil Co., Second Nat. Bank Bldg., Houston, Super, Jr. 1, H. Griffith sur, 50 ft to e and 75 ft to s line. Humble, Houston, Kirby 1, 1, T&NO sur, 1950 ft to e and 150 ft to s line.

Caldwell County—Jos. Bruner, Waelder, Davis 1, A. Floyd sur, 1530 ft to e and 245 ft to s line.

Eastland County—Texas Pacific Coal & Oil Co., Ranger., Cochran 1, s 15 b 3, H&TC sur, 200 ft to s and e lines. Smith, Teatsorth & Lewis, Eastland, Johnson 3, s 11 b 4, H&TC sur, 200 ft to w and 150 ft to s line.

Glasscock County — World Oil Co., World Bldg., Fort Worth, McDowell 1, s 43 b 34, T&P sur, 1320 ft to s and w lines.

Grayson County — Camp Oil & Gas Co., Wichita Falls, Odell 1, T. R. Shannon sur, 150 ft to w and 490 ft to s line.

Medina County—Schermerhorn Oil Co., Tul-

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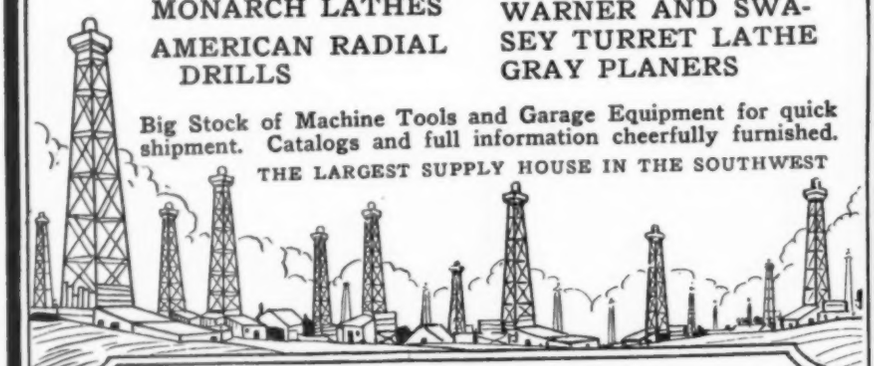

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sa, Medina Valley Farms 5, blk 3, J. Degant sur No. 31, 2500 ft n of 1. Western Gas & Fuel Co., San Antonio, Adams 11, Durst sur, 1550 ft nw of 10.

Mitchell County—Colorado Co. of California Co., Colorado, Handley 1, S 13, blk 28, T&P sur, 330 ft to n and w lines; M. Adams 3, S 11, blk 28, T&P sur, 660 ft n of 2.

Navarro County—R. R. Penn et al, Garvin 1, M. J. Tidwell sur, nw central. Young & Faile, Corsicana, Tucker 1, W. Powell sur, 150 ft to n and 175 ft to w line; Walton 1, W. Powell sur, 150 ft to s and e lines.

Pecos County—Group I Oil Corp. & Marland, Big Lake, Blakesley 1, S 90, blk 11, 330 ft to s and w lines. Texon, Big Lake, Yates 2, S 55, blk 1, I&GN sur, 1320 ft to n and 660 ft to w line.

Reagan County — Krupp & Pickrell, Big Lake, University 10A, S 36, blk 9, Univ. Lands sur, 406 ft nw of 33.

Shackelford County — Milham Corp., San Antonio, Moore Est. 27, TE&L sur, 300 ft w of 29. T. G. Shaw, Fort Worth, Terry 2, S 45, L. A. L. sur, 150 ft to w line. Murphy & Gibson, Albany, Mathews 1, S 58, E. T. Ry sur, 150 ft to s and w lines. Texa, Klinger et al, Albany, Whitney 1, blk 512, TE&L sur 700 ft to nw and 167 ft to ne line. Deedl & Earls, Albany, Mathews 1, S 32, E. T. Ry sur, 150 ft to n and ne lines. J. E. Cosden, Inc., et al, Fort Worth, Reynolds 4, S 13, blk 11, T&P sur, 325 ft ne of 2. G. G. Pass, Albany Broyles 1, S 14, L. A. L. sur, 150 ft to s and e lines. Gibson & Johnson, Abilene, Snyder 1, S 66, blk 11, T&P sur, center. Roeser & Pendleton, Inc., Fort Worth, Reynolds 1 S 45, blk 12 T&P sur, center. W. R. Mason, Moran, Brooks 1, S 67, L. A. L. sur, 1651 ft to n and 675 ft to w line. Albany Oil Co. & Hope Oil & Gas Co. Breckenridge, Reynolds 4, S 24, blk 11, T&P sur, 300 ft se of 3. Scott & Walker, Wichita Falls, Huskey 11, 548, TE&L sur, 2244 ft to ne and 750 ft to se line. Lee-Dinger Oil Co., Albany, Meyer 1B, S 1, GH&H sur, 1750 ft to n and 125 ft to w line. Home Oil & Gas Co., Albany, Huber 8, 531, T&EL sur, 510 ft to nw and 800 ft to ne line. P. K. French, Fort Worth, Reynolds 1, S 29, blk 11, T&P sur, 150 ft to n and w lines. Dull & Earls, Albany, King 1, 569, TE&L sur, 568 ft; Poindexter 1, S 32, Blind Asy. sur, 580 ft. Barnsdall Oil Co., Wichita Falls. Jetter 1, S 15, blk 11, T&P sur. Moutray Oil Co. & Reiter-Foster Oil Corp., Abilene. Snyder 2B, S 36, L. A. L. sur, Wright, Daub & Ross, Abilene, Poindexter 1, S 56, blk 11 T&P sur.

Stephens County — Sun, Dallas, Frazier 1, 1003, TE&L sur. Humble, Wichita Falls, Black A 1, S 11, L. A. L. sur, Red Bank Oil Co., Tulsa, Robertson 1, blk 6, P. Norton sur, 440 ft to e and 1320 ft to s line. F. C. Clark, Breckenridge, Riddle 1, S 67, T&P sur, 650 ft to n and 500 ft to w line. Conway Bros. & Gholson, Box 1147, Ranger, Gardenshire 1, S 49, blk 6, T&P sur, 165 ft to n and w lines.

Sherman County—Phillips Bartlesville, Price 1, S 33, blk 2B, GH&H, ne corner.

Terrell County — E. T. Williams, Del Rio, Snowden 1, S 71, blk D10 T. C. Ry sur, 3145 ft.

Upton County—Simms, Dallas, Clark 1, S 5, GC&SF sur, 330 ft to n and e lines.

Wichita County—Magnolia, Dallas, Watkins 10, H. B. Balch sur, 50 ft w of 3; Staniforth 4, H. B. Balch, sur, 150 ft to n and e lines. A. A. Rollstone, Staley Bldg., Wichita Falls, Schnakenberg 1, blk 819, F. W. Huserman sur, 200 ft to s and e lines. E. W. Boyd, Wichita Falls, Waits 2, BBB&C sur, 150 ft to s and w lines. L. P. Hammond, Wichita Falls, Ferguson 4, blk 50, W. V. F. L., 1850 ft. C. P. Sheldon, Electra, Frankl-Cohen 5, blk 328 Wag. Col., 594 ft. L. M. Conrey, Wichita Falls, Martin 1, H. Hastie sur, 300 ft. Continental Oil Co., Wichita Falls, Camp & Allen 1, blk 8, W. V. F. L. sur, 1821 ft. Holbrook & Woods, Wichita Falls, Hodges 1, HT&B sur, 875 ft. Simms, Dallas, Wag. Bros. 2, blk 12, H. George sur, 2273 ft. George L. Pace, Wichita Falls, Mitchell 6, P. Castleman sur, 1884 ft. M. L. Davis, Wichita Falls, McDonald 1, blk 28, Buffalo Cr. sur, 530 ft. Fuller & Knotts, Staley Bldg., Wichita Falls,

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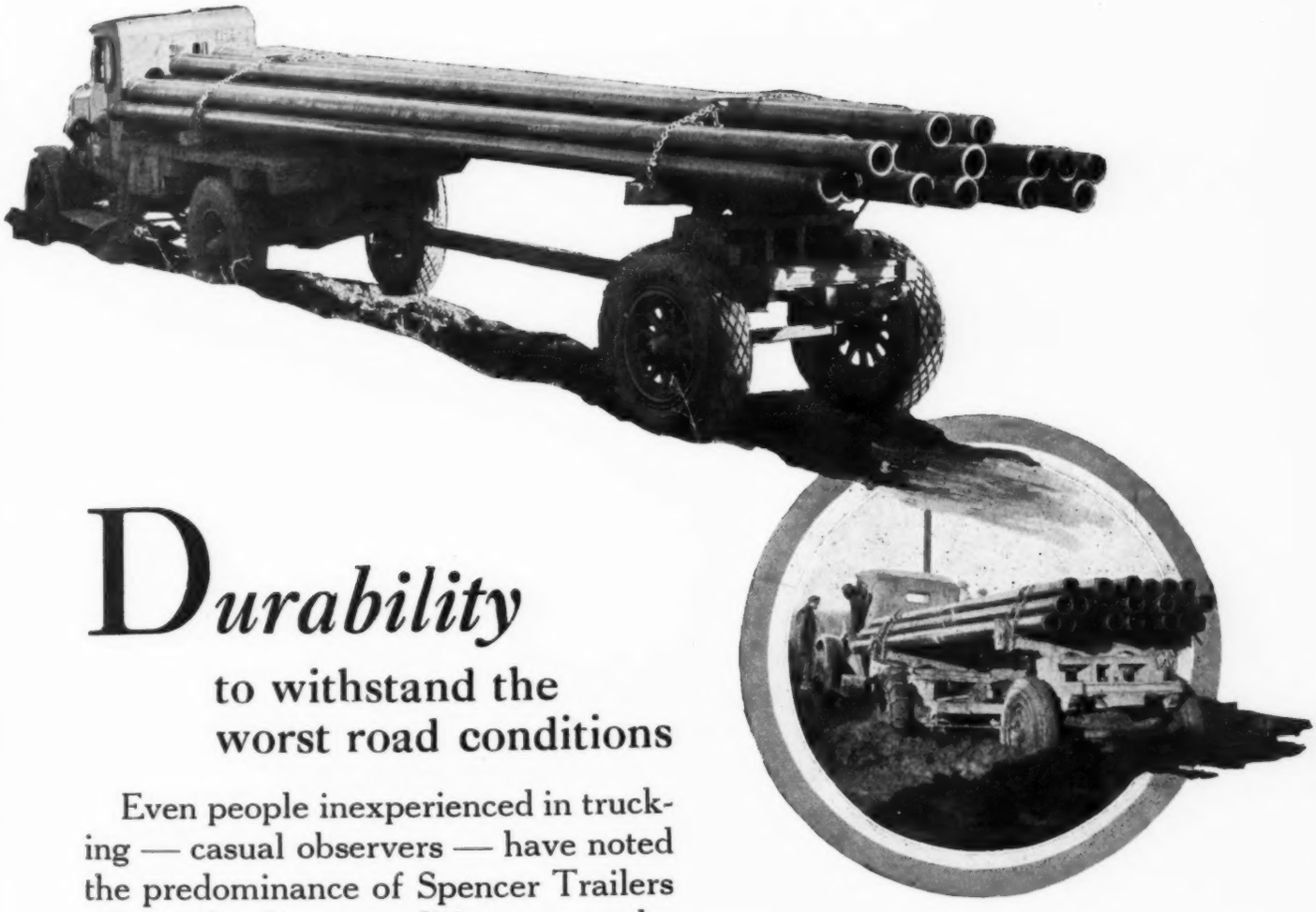

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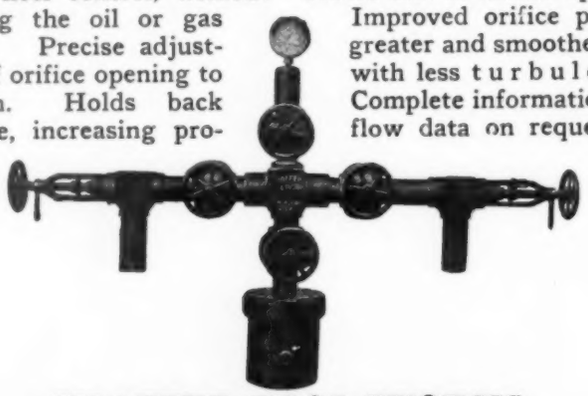

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Webb County—Houston Oil Co., Houston, Benavides D 1, S 387, M. Arispe sur, 155 ft to s and w lines. O. W. Killam, Laredo, Bruni 1, S 4, blk 5, M. Arispe sur, 150 ft to s and e lines; Bruni 3, blk 64, 150 ft to n and 450 ft to w line; Bruni 2, blk 65, 700 ft e of 1. Cole Petroleum Co., Laredo, Benavides 43, S 412, blk 13, 450 ft to s and 1060 ft to e line.

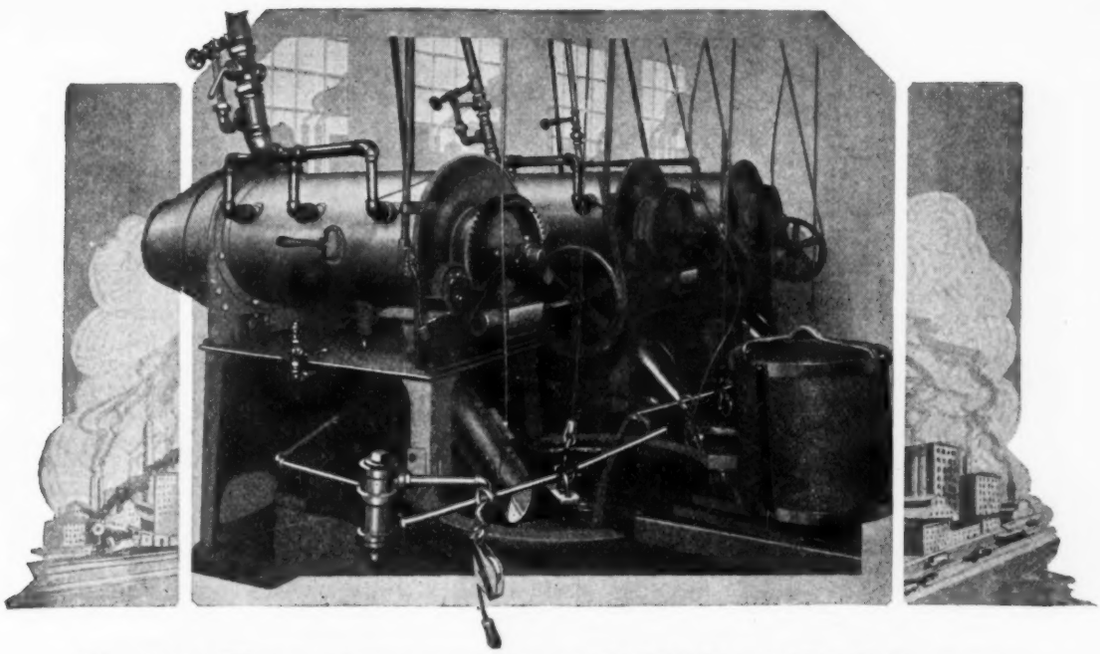
Wilbarger County—Waggoner Ref. Co., Inc., Electra, Waggoner A7, s 47, b 4 H&TC sur, 250 ft s of A4. Magnolia, Dallas, Waggoner 1, s 16 b 5 H&TC sur. Wichitex Oil Co., Wichita Falls, Woodward 1, s 54, b 15 H&TC sur. Fain-McGaha Oil Corp., Wichita Falls, Belcher 1, s 19, b 9 H&TC sur. Phillips, Bartlesville, Kelly 1, s 26, B 2, H&TC sur. A. T. McDonald, Electra, Waggoner 1, s 7, b 17 H&TC sur.

Winkler County—Texon, Big Lake, Hendricks 1, s 41, b B5 School, 330 ft to s & w lines. F. P. Zoch, W. T. Waggoner Bldg., Fort Wort, Smith 1, s 73, b A, GM&A sur, 4080 ft.

Wharton, County—Atlantic, Dallas, Harrison 1, S. E. Austin sur, 250 ft to ne and 500 ft to se line. Weed-Gayle Oil Co., Beaumont, Bay 2, S. F. Austin sur, 600 ft to n and 450 ft to w line.

Young County—Wooten-Reed et al, Graham, Jack C-1, b 23, Y. C. S. L. sur, 1320 ft to n and e lines. Western Oil Sales Corp. & Crenshaw, Wichita Falls, Prideaux 5, A Rohus sur, 150 ft e of center of w line. Panhandle Ref. Co., Wichita Falls, Mathews 8, A. Rohus sur, 300 ft e of 6. Christie & Maddox, Olney, Christian 1, 255 TE&L sur, 150 ft to s and w lines. Claude H. Shumate, Dunsmuir, Calif., Fee 1, G&BR sur, 450 ft to N and 750 ft to E line. C. B. Jetter, Wichita Falls, Garvey 1, 1857 TE&L sur 467 ft to e and 150 ft to s line. Park Petroleum Co., Inc., Wichita Falls, Prideaux 2, A. Rohus sur, 300 ft nw of 1. Riggs & Oliphant, Graham, Brown 1, S. Tynes sur, 150 ft to S and e lines. Stafford & Hayes, Graham, Mathews 4, A. Rohus sur, 1050 ft to e line. Conner, Son & Cloughley, Wichita Falls, McCluskey 4, 3415 TE&L sur, 325 ft. e of 1. M. H. Leterman, Oklahoma City, Garrett 2, b 12 Y. C. S. L. sur, 300 ft n of 1. Panhandle Ref. Co., Wichita Falls, Gambrell 1, s 1, BBB&C sur. Bridwell & Heydrick Oil Co., Wichita Falls, Hamilton 1, 1480 TE&L sur. Upham Gas Co., Dallas, Cartel 1, McKinney & Williamm sur. Roeser & Pendleton, Fort Worth, Davis 1, S. N. Daniels sur. Roberts Oil Corp., Breckenridge, Stewart 1, D. Dawson sur. Proctor Oil Co., Wichita Falls, Tarkenton 1, b F. E. V. Green, et al, Breckenridge, Allar Co. 1, J. H. Wood sur. W. J. Sheldon, Tulsa, Miller 1, A. Rohus sur. Cunningham, Priddy & Jones, Perkins-Snider Bldg., Wichita Falls, Peters 2, H. F. Peters sur. Panhandle Ref. Co., Wichita Falls, Gambrell 4, s 1, BBB&C sur. Tarkenton & Schoolfield, Wichita Falls, Prideaux 1, s G, Wm. Stoleham sur.

Zapata County—J. H. Winch, Laredo, Bustamente 1, b 8, Share 10 Comitas, 150 ft to s and E lines. Duke-Langford Oil Co., Wichita Falls, Redondo 1, b 30, W. R. Duke sur, 3245 ft to n and 1420 ft to w line.; 2, 3420 ft to n and 1320 ft to w line; 3, 3345 ft to n and 1570 ft to w line; 4, 1520 ft to w and 1100 ft to s line; 5, 1670 ft to w and 1450 ft to s line; 8, 1795 ft to w and 1250 ft to s line; 9, 1680 ft to w and 1000 ft to s line; 10, 1420 ft to w and 850 ft to s line; 11, 1495 ft to s and 1550 ft to w line.



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ONE of the most important of all the exacting operations that take place in making Hoover Steel Balls is heat treatment. Crushing load, fatigue life, wear resisting qualities and resistance to deformation—all these depend upon proper treatment by heat.

Balls are fed, from a hopper, into rotary hardening furnaces, slowly and a few at a time so level temperature may be maintained. As they roll on, they are gradually brought to the correct temperature for quenching and hardening. A minutely accurate electrical apparatus maintains correct temperatures at all times. Leeds & Northrup Potentiometers give a further check on temperature control by recording and signalling furnace temperatures. After being heat-treated, the balls pass to quenching pits, where they are cooled either by water or by oil, depending on their size.

Nowhere in the whole Hoover plant is more precision exercised than in the heat treatment department. That this painstaking supervision pays is amply proved when you consider that practically every quality product manufacturer specifies Hoover Steel Balls —refuses to consider any other kind.

This is Eighth of a Series of Stories Explaining the Manufacture of Hoover Balls

Hoover Steel Ball Company, Ann Arbor, Mich.

Chicago, 1901 Mallers Building *Detroit, General Motors Building*
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Spiral Roller Bearings for Automotive and Industrial Applications

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Steel · Brass · Bronze
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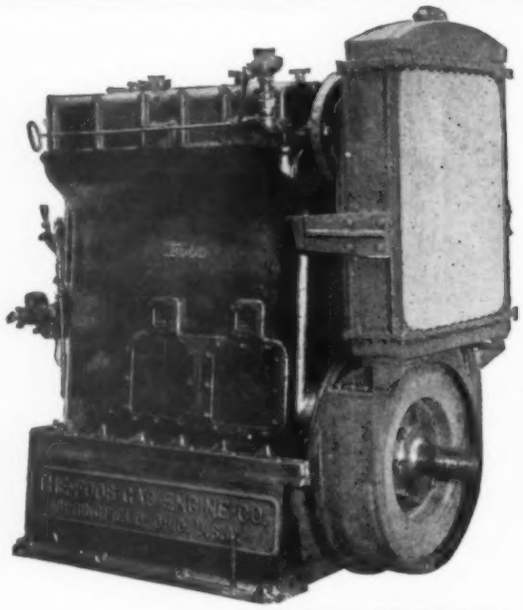

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2,000	ft. 6″	used line pipe	5,000	ft. 10″	used casing
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Three complete strings Standard Drilling Tools.
One string 6-inch Rotary Drill Pipe with tool joints.

We buy abandoned pipe lines and oil wells. If you have any to sell, communicate with us before you dispose of them.

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The electric geophysical method of subsoil surveying.

Locating, defining the areas and determining the depth of petroleum deposits.

ANDREWS & BORSUM
Esperson Building Houston, Texas

Natural Gas Is Efficient for Steam Making Furnace

(Continued from page 80)

methane will be found in the gases of combustion. The flame will be seen to be long and luminescent, which is caused by the secondary combustion of the carbon and the hydrogen. The presence of unburnt carbon and the like in the flame of natural gas is of course an indication that the combustion is incomplete.

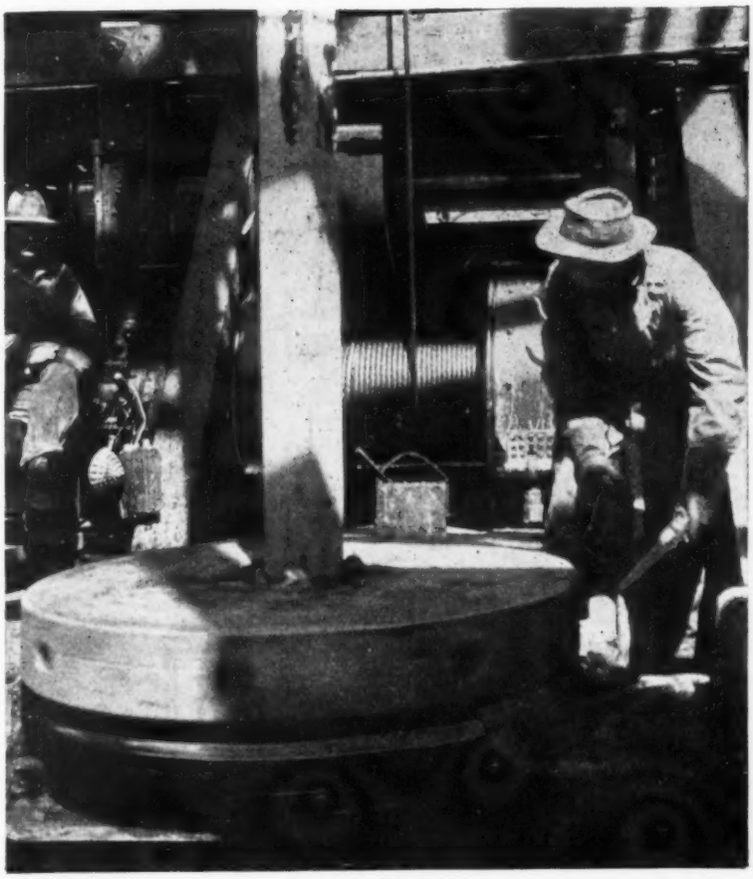
When natural gas is used for practical purposes under the boiler, it is not always possible to adjust the combustion with respect to the color of the flame of burning gas. But it is essential that the burners are given careful attention all the time, for the economy of the entire process depends on securing complete combustion. The various instruments which are employed on boiler furnaces which burn either solid or gaseous fuel can be used when the fuel is natural gas, but the scales must be recalibrated.

Burner Important

The type of burner nsed is of great importance. For unless this burner will give an intimate mixture of gas and air, combustion will not be economically carried out and losses will result. Most of the burners that are used today for this purpose are of two types. The first type is for use with gas at high pressure up one atmosphere excess pressure, and the other type is used with gas under a few millimeters of water pressure. Then again the manner in which the burners work can also be classified in two ways. In the first place there are those burners that work on the Bunsen burner principle in which parallel currents of gas and air are intermixed, and then there is the torsion burner in which the currents of air and gas come into contact with each other at an angle of 90 degrees.

Some burners are made so that they utilize the speed of the high pressure gas current in order to suck in the necessary air for combustion of the fuel. The speed of the gas will be greatest in the narrowest portion of the throat of the burner and in the widened conical portion that generally follows the speed is reduced and an opportunity is given to the gas and air to become thoroughly mixed.

The burners that are used in this country are mostly of cylindrical type and work on the Bunsen burner principle in which two parallel streams of low pressure gas and air are intermixed. The burner is a cylindrical tube, one end of which is partially closed and the stream of gas flows through the center of the tube. Due to the slowness of the movement of the gas, the sucking in effect on the air is not very marked. The fact that both air and gas streams flow parallel to one another makes it difficult, it is claimed, to obtain a thorough admixture of the two fluids, and they are apt to be superimposed on one



A partial view of Complete Gumbo Buster Rotary Rig belonging to Bristow Drilling Company, (M. S. Hughes), with Gan Johnson at the brake, drilling T. B. Slick's Fox No. 1, Seminole.

Old Rep Says:

Europe has staged a wonderful comeback —for more.

Yes sir, Moot knows his okry when it comes to bird dogs and rotaries.

Mr. M. S. (Moot) Hughes has an interest in four other rotaries:

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(M. S. Hughes, E. W. Hughes, and Nels Burton)—Two Complete Gumbo Buster Rigs.

M. S. Hughes

One Complete Gumbo Buster rig.

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(Jim Doak, John Doak, and M. S. Hughes)—One Complete Gumbo Buster rig.

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Ownership maps of Andrews, Borden, Crane, Dawson, Ector, Gaines, Glasscock, Haskell, Howard, Loving, Martin, Midland, Mitchell, Reagan, Scurry, Upton, Ward and Winkler Counties, and north parts of Crockett, Pecos and Reeves Counties. Scale, 4000 feet 1 inch. Cloth, $10.00; paper, $6.

Catalog on application.

HEYDRICK MAPPING COMPANY
Wichita Falls, Texas

another in layers. This is not a very good condition, for gas which is burnt under these conditions will not be burnt completely. Incomplete combustion will be immediately recognized by the luminosity of the flame.

Furnace Designs

Furthermore physical law teaches us that the temperature of combustion is dependent on the carbon dioxide content of the gases of combustion, and thus when this content is low the combustion temperature will also be low.

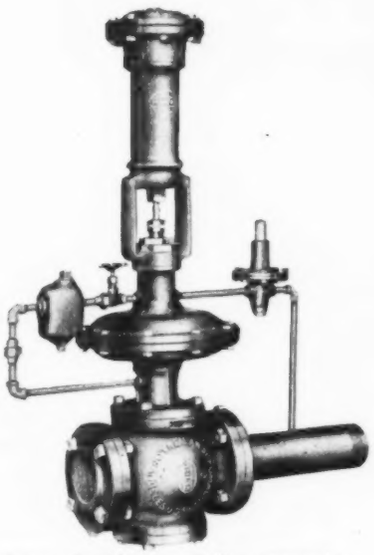
There are in general three different principles which govern the design of the boiler furnace as far as the manner in which the heat obtained by the combustion of the gas is fed to it, or to the mass of water contained in it. Heat can reach the water either by conduction, convection or radiation. The latter two are of most importance in the operation of the boiler. The transmission of heat is a matter which has been given far more attention during recent times than heretofore and there have been many experimental investigations carried out on this matter. Particular attention has been paid to the effect of radiation, which, as is known, increases with the temperature. Another important consideration in the case of radiation is that the emission of heat rays can take place over only a substantial part of the surface but never over the entire surface. Radiating surface is thus not the same as geometrical surface. It must furthermore be remembered that technical surfaces will have a different heat radiating capacity in accordance with the radiating color. Thus the absolutely black surface will have a strong heat absorbing effect and will radiate but little heat as compared with the bright surface.

The gases of combustion will themselves possess a low heat radiating capacity. On the other hand, recent experiments have shown that thick layers of heating gases which contain considerable proportions of carbon dioxide have a high radiating effect. This is an important factor in that complete combustion will of course connote high concentration of carbon dioxide in the combustion of gases and complete combustion can best be obtained with the natural gas fuel. Then again non-luminous flames do not radiate heat, while luminous flames which are of course due to incomplete combustion of the fuel, have a radiating capacity which is equal to that of an absolutely black body.

All these factors must be taken into consideration in designing the heating space and combustion chamber of the furnace that burns the natural gas fuel. There is no question but that the efficiency of the boiler can be materially increased when due consideration is paid to these details. Furthermore, in the use of natural gas as fuel, radiating surfaces of firebrick are properly arranged near the burners so that the heat raises then to a high tempera-

STEADY BOILER PRESSURE
Regardless of Load

No Lost Time or Delays in Drilling
On Account of Low Steam Pressure



Neilan Combination Boiler Governor and Fuel Gas Regulator No. 87

This Neilan device will maintain constant boiler pressure on a battery of boilers, or a single boiler, regardless of change in steam requirements or fluctuations of gas pressure.

No adjustment required when one or more boilers are cut out or put into service. Feeds burners exactly the right amount of gas for perfect combustion.

Higher pressure can be carried on boilers and thus take care of greater steam requirements. Steam pressure can be carried up to within one pound of blow-down pressure of pop safety valves. No Gas Regulator required with this governor. Prevents damage to fire-box, flues and stack, and saves fuel.

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It provides CLEAN gas for the Absorption or Casinghead plant.

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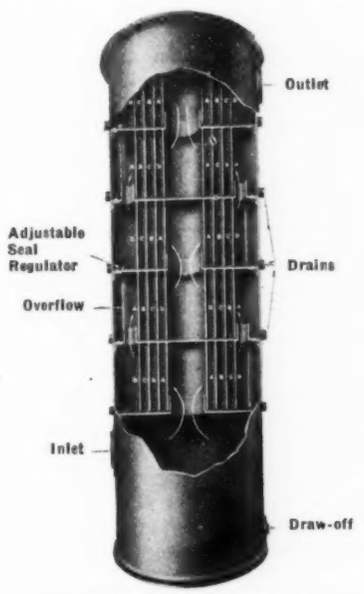

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It will, in refineries, result in lower end points, less treating and higher yields.

Can be used to remove suspended oil from "tail-house" gases.

Can be installed for pipe or cylindrical stills to remove all unvaporized oil held in suspension before vapors reach dephlegmators.

It operates under pressure or Vacuum.

It operates without excessive back pressure.

For sizes, specifications, prices and further information write to

OIL ENGINEERING COMPANY
WRIGHT-CALLENDER BUILDING LOS ANGELES, CALIFORNIA

Save Time on Back Pressure Valves

Shipment made day order is received. Made in all regular and special sizes, entirely of bronze, by men who know.

In ordering please specify whether for drill or line pipe coupling.

SOUTHERN BRASS MFG. & PLATING COMPANY

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ture and a strong radiating effect is produced. The proper shape and the proper location of the radiating bodies in the fire space are very important considerations in the use of gaseous fuel, whether it is natural or manufactured, or whether it is used in a steam boiler or in a heat treating furnace or other furnaces where radiant heat is required.

Our readers are referred to an excellent article on this subject in Petroleum Zeitschrift, 1926, pages 335ff. from which we have taken certain information in preparing this paper.

Timken Company Elects Officers

Canton, Ohio.—At the annual meeting of the Timken Roller Bearing Company, held at the main plant recently, all the present officers were reelected for another year.

H. H. Timken is president; W. R. Timken, John G. Obermier, Marcus T. Lothrop, H. J. Porter and T. V. Buckwalter, are vice presidents; J. F. Strough is secretary and treasurer, and W. A. Brooks, is assistant secretary.

Directors are H. H. Timken, W. R. Timken, Marcus T. Lothrop, John G. Obermier, and J. F. Strough.

Shaffer Tool Works Builds New Shop

Ventura, California.—Shaffer Tool Works with headquarters at Brea, is now building a large machine and welding shop here, to take care of the rapidly increasing volume of business in the Ventura district.

Heavy pressure conditions have been met in the Ventura section, thereby causing a sudden boost in the demand for Shaffer products, such as the high-pressure casing head, flow bean, and other specialties made by this company.

A stock of these products will be kept at the Ventura store and shop.

The Tret-o-lite Process is Thorough

ALL the oil goes to the top; ALL the water settles to the bottom. No residue. "Cut oil" becomes water and pipeline oil—that's all. Our nearest field representative is at your service.

Wm. S. Barnickel & Co.

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ORIGINAL EOTVOS TORSION BALANCES
Sold and your personnel trained, or rented by the month or by the acre.
DR. GEORGE STEINER
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WANTED: To buy producing royalties under developed or partially developed oil properties in Texas, Louisiana, Oklahoma, New Mexico or Arkansas.
Give particulars and lowest cash price in first letter.
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Field Gas Testing. Analysis of oil field brines, gas minerals and oil
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LAP-WELDED IRON & STEEL TUBES

Large warehouse stocks enable us to fill orders promptly. Charcoal Iron and lapwelded steel tubes to serve all purposes.

Ask for particulars

The Tyler Tube & Pipe Co.

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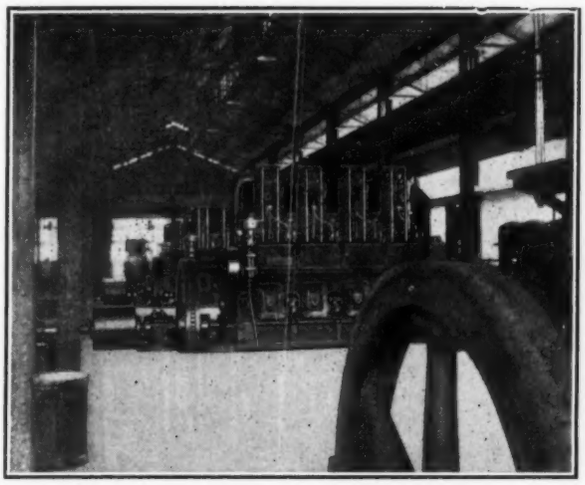
De La Vergne



4-260 H. P. De La Vergne Vertical Diesel Engines, recently sold to Andian National Corp., for pipe line pumping, in Mamonal Station, Colombia, S. A.

Write for Bulletins

De La Vergne Machine Company

921 East 138th St., New York, N. Y.
Also Manufacturers of Ice Making and Refrigerating Machines

The World's Most Durable Valve Cup

Last Longer
Best Quality

Wear Better
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Manufactured only by

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BAROID

also protects drilling equipment

IN addition to making the drilling of wells safer, Baroid has remarkable sliming properties. It forms a coating over the drill stem and over the inside and outside of the casing, protecting these important parts from the friction of "cuttings."

Stocks of Baroid are carried by:

PEDEN IRON AND STEEL CO.,
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Battery of 100 *H. P. Waukesha Oil Field Units at Tonkawa, Okla.*

p-721-L

$10.00 a Minute

That's what it costs in production loss if this plant is shut down. Continuously, night and day, these Waukesha "Ricardo Head" Oil Field Power Units toil delivering gas at 250 pounds pressure from two-stage 10x4½x10 gas compressors that they drive. What better proof of Waukesha stamina and reliability could you ask?

Waukesha "Oil Field Power Units" have contributed very greatly to the successful flowing of oil in the seminole field where more than a unit a day went into the field during the boom. Waukesha Units are also built for pumping oil and water and drilling wells, either with cable or rotary rigs. Write for further information if you are interested.

P-731-L

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WAUKESHA MOTOR COMPANY

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New York	Kansas City	Denver	Tulsa	Houston	San Francisco
8 W. 40th St.	V. L. Phillips Co.	Wilson Machy. Co.	C. F. Camp Co.	Portable Rotary Rig Co.	C. A. Watts

Exclusive Builders of Heavy Duty Gasoline Engines for Over Twenty Years

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

Zero Hour Bomb Is Improved

Among the improvements made by Zero Hour Torpedo Company of Tulsa in its Zero Hour Electric Bomb since its introduction in the Mid-Continent field two years ago, a recent one is outstanding. This consists of a hard rubber hinged cap over the stem of the bomb watch which permits the watch to be wound and set without the exposure of any other part. The top section of the protective chipboard tube case is now sealed over the watch at the factory, while an oval shaped celluloid window exposes the face of the watch to the full view of the shooter while he is setting the watch for the predetermined time at which the bomb shall explode. This is done before electric blasting caps or any other explosive are attached to the mechanism and the rubber cap is then snapped shut over the watch stem. This is said to prevent any possibility of accidental change of the timing of the watch mechanism which could cause premature firing of the bomb, as the entire watch and dry battery to which it is connected are completely encased by non-conductive covering. The only parts of the mechanism then exposed are two wire terminals extending through the bottom of the chipboard tube, and to which electric blasting caps may be attached. Closing of an electric circuit to fire these caps is possible only when the hour hand of the watch makes metallic contact with a fine gold wire inserted through the watch crystal at a fixed point on the dial referred to as the "Zero Hour."

The entire mechanism is designed and constructed in accordance with approved scientific and mechanical principles.

A handy compact testing outfit is furnished to shooters for determining that the mechanism will fire at the appointed time and will not fire at any other time. It consists of an electric flash light bulb and socket which may be easily attached to the cap connection terminals by spring clip connectors.

Presence of light in the test bulb indicates that the hour hand of the watch is in firing position at the Zero Hour, and the existence of a closed circuit carrying sufficient electrical energy to explode two electric blasting caps connected in parallel. Absence of light in the bulb after the hour hand has been set not less than one nor more than eleven hours away from Zero Hour indicates that no circuit exists and that blasting caps may safely be connected to terminals.

The simplicity of design has made Zero Hour Electric Bombs popular with oil producers and shooters. Its watch runs just like any watch in anyone's pocket. The hour hand moves forward freely in a positive, orderly manner, without any unusual strain until it makes contact with the "firing pin." This contact releases the full energy of the 15 amperes, 1½ volt, battery to explode the electric blasting caps. This explosion detonates 1½ pounds of 60 per cent nitro glycerine dynamite placed in the lower section of the mechanism tube, and this in turn explodes the "shot" of nitro glycerin or gelatin used to shoot the well.

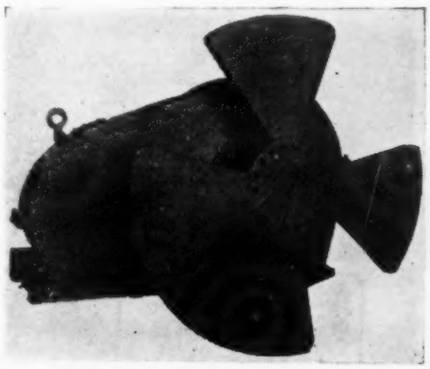
More information will be mailed upon communication with the company at 408 Cosden Building, Tulsa.

Counterbalanced Crank For Pumping

The R. D. Nuttall Company has recently developed a counterbalanced crank to be used with their double reduction units for oil well pumping. The need for a counterbalance in this service arises from the fact that power is transmitted through a crank by a single acting walking beam, which gives a cycle of operation tapering from a maximum load, when the string of sucker rods and their load of fluid are being lifted in the well, to a minimum load on the downward travel of the sucker rods. The speed of the motor, naturally, falls while under load, and in the opposite half of the cycle is accelerated by the pull of the rods. Thus, the motor is subjected to very uneven torques and to sudden application and recession of loads, with a consequent detriment to its life and efficiency.

The static load, the weight of the rods plus that of the fluid pumped is variable. It will vary not only in the different wells, but from time to time in the same well. The Nuttall Company has designed the new counterbalance to compensate for this variation.

The counterbalance consists of three sections, a heavy main section, which is the crank proper, and two adjustable wings. The heavy main section is drilled in the same manner as a six-hole crank, and it is pressed onto the slow speed shaft of the double reduction unit in exactly the same manner. This section serves as a fixed balance against the weight of the rods and their load of fluid. The variations in the load are cared for by the two movable wings, which can be rotated about a collar on the central section; these wings can be moved to any desired position and held fixed by a bolt. Thus, by moving the wings, any variation in balance can be obtained. As the two wing sections are equal in weight to the main section, during bailing or cleaning operations it is possible to move them opposite to the heavy section, and secure, in effect, a fly wheel.



NUTTALL COUNTER-BALANCED CRANK

The counterbalance also has possibilities in leveling out the dynamic load resulting from the stretch of the sucker rods. This elasticity may amount to several inches in a deep well and is a decided factor in the uneven loading. As the counterbalance moves into the quadrant during which the sucker rods commence to lift in the well, for a brief period, in which the stretch is being taken from the rods, the counterbalance is heavier than the rods, giving a momentarily high load on the motor. By placing the top wing in a position where it will lag behind the other two sections, it will serve to relieve this peak load, by exerting a balancing load during the moment elapsing between the time when the top of the string of sucker rods starts upward, and when, because of the elasticity, the bottom of the string starts to move. No fixed rule can be given for the position of the wings, a trial of various points would be necessary to get the proper compensation.

More detailed information and descriptive literature may be secured by writing the manufacturer, The R. D. Nuttall Company, Pittsburgh, Pa.

Ideco Moves Its New York Office

New York. — International Derrick and Equipment Company announce the removal of their office here, to Room 909, Trinity Place. A. L. Woracek is the eastern representative.

"4 Jacks" that are "Aces" in every oil field

Templeton, Kenly & Co., Ltd.
Sole Mfrs.
Chicago, Illinois

Simplex Jacks

At Your Supply House

Kick Off Valve Flows Wells

The Shaffer Kick Off Valve, a new piece of equipment being marketed by the Shaffer Specialty Company, Tulsa, Oklahoma, is designed for use in wells which have ceased to flow naturally, but which still head up to a considerable height with the rock pressure remaining.

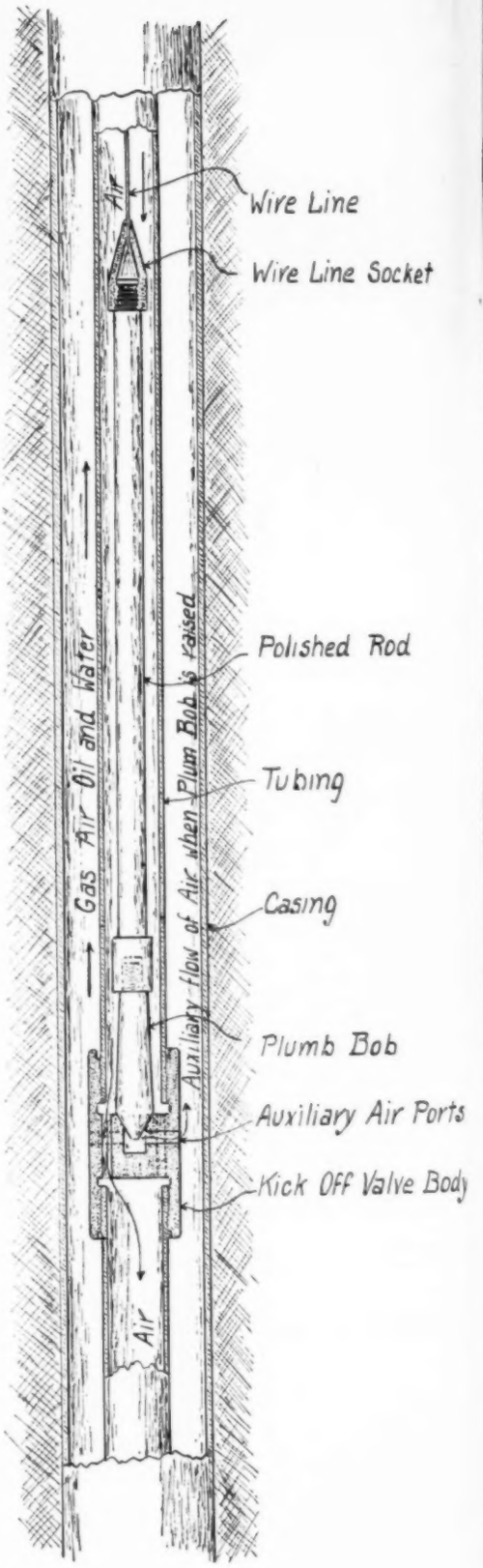
Two principal advantages are claimed for the valves: it reduces to a minimum the necessity for handling the tubing both at the time when the well is first put under air, and at any subsequent time when it may be necessary to shut down, for any cause, long enough to permit the well to head up again; and it permits the use of lower pressures with attendant lighter equipment.

A complete outfit consists of as many Kick Off valves as may be needed with a check valve for the foot of the tubing. The valves are screwed in between two collars on the tubing.

For example, a three stage outfit would comprise two Kick Off valves and a check valve and would be installed about as follows: One length of tubing would be put under the check valve to protect the valve from getting too close to loose material that might be in the hole. The length of tubing run before the first Kick Off valve is put on would be determined by the amount of fluid standing in the hole. The head would be split in three approximately equal lengths, with the bottom section a few stands shorter than the others to allow for water that might be standing in the well. If the well should have 3000 feet of fluid, it would be advisable to run 850 or 900 feet of tubing before putting on the first valve. Then about 1000 feet more of tubing would be run and the other Kick Off Valve put in.

When the connections are all set, the wire line is run through the stuffing box, the weight rod, plunger and clamp for the upper valve, and securely fastened to the plunger of the lower valve. The lower plunger with 950 or 975 feet of line is then run into the tubing. The plungers must be a little closer together than the valves. The clamp which supports the upper plunger is then tightened and the whole outfit lowered into the tubing. When the upper plunger still hangs just clear of the valve, the stuffing box is tightened and the outfit is ready to go.

Additional information may be secured by writing the Shaffer Specialty Company, Tulsa.



J. A. Campbell Company In Tulsa

Tulsa,—J. A. Campbell Company, manufacturers of the Campbell Oil Froth Absorber, has recently established a branch office here.

R. C. Flournoy, Jr. will handle the exclusive agency in the Mid-Continent and is manager of the Tulsa store.

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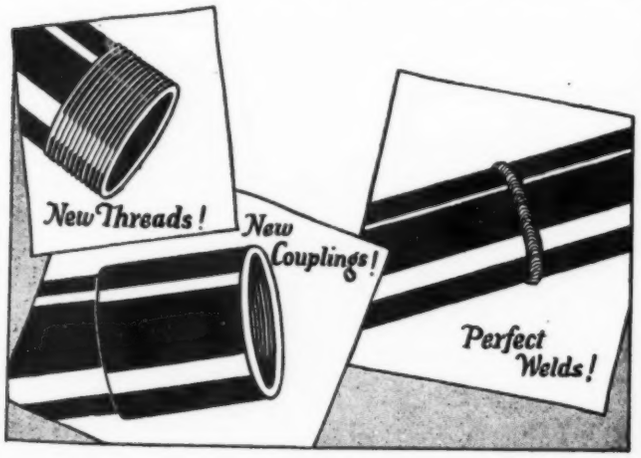

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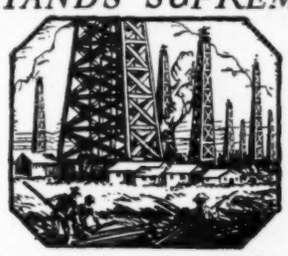

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POOR SAFETY---

" . . . you see, folks, Safety is in the hospital this week, nursing a sore . . . . er . . . . that is . . . Safety is in the hospital. Yes, that's it. He had an accident. The boss was wild eyed because Safety didn't say anything about Dunn Tools last time, when the boss had him all ribbed up to spill a lot of stuff about how Dunn Safety Rotary Tongs don't pull off the pipe when used with a shot gun cathead.

. . . . and Safety didn't, and the boss did."

Poor Safety . . . he was havin' one h— of a time of it the last time I saw him. You see the accident happened to his—well—Safety is wearing a pillow where there used to be a patch on his pants, and if you haven't any imagination, maybe you've had a boil where the boss put a bull's eye.

Well, poor old Safety, is in a peck of trouble. And I do hope I don't get into the same kind, type and size. He can't sit down, and he can't lie down either, only just one way. And it hurts him awful to walk, or even to stand. You know when you come to think of it . . . . that's a darned important part of us, isn't it? We ought to be awful careful as we go through life, and not take any unnecessary chances, as one always does thoughtlessly.

And that gives me a good idea. If the boss ever instructs me to do anything for not doin' which I might get a sock in the seat, I'm going to send him a parts list of myself, like he prints of Dunn Tongs, etc., you know. I'll ask him to specify the number of the part he has in mind and then I'll build a substitute or something in advance of actual need, sorta' like you guys do out in the rig. Well, so long. Safety sent his regards to all of you. Says he'll see you next time . . . . maybe.

Dunn Speed
(For the Two of us)

SQUEAKS FROM THE BULL WHEEL

Truthful

Merchant—"Did your last employer give you a reference?"

Man—"Yes, but it doesn't seem to be any good."

Merchant—"What did he say?"

Man—"He said I was one of the best men his company ever turned out."

"How's Smith in the high jump? Any good?"

"Naw, he can hardly clear his throat."—Union Oil Bulletin.

The Sixth Grade of the American school of Tampico were given the words for their spelling lesson from the discussion of current events. The name of a prominent senator from the "Wild and Wooly," who is forever "agin" the administration, was listed. One little girl spelled it Burro (Spanish for jackass). The teacher gave her 100 per cent.

Luck

"Have you heard of the extraordinary luck of the artist X?"

"No. Has he sold some pictures?"

"One."

"Do you call that extraordinary luck?"

"Yes. I saw the picture."

Gordon, 7 years old was playing bandit, and for some time had been staggering around as if badly wounded, without actually toppling over as a victim of the imaginary bullets of his playmates. A neighbor watching the game called to him:

"Gordon, why don't you fall down?"

"I can't," answered the boy crossly; "I'm not allowed to. If I had on my old pants I'd have been dead long ago."—American Hebrew.

Presence of Mind

He—"I want to buy a present for my wife."

"Can I interest you in some silk stockings?"

"Let me see about the present first."

Mournin' as is Mournin'

A woman in the mountains of Tennessee was seated in the doorway of the cabin, busily eating some pig's feet. A neighbor hurried up to tell of how her husband had become engaged in a saloon brawl and had been shot to death.

The widow continued munching on a pig's foot in silence while she listened to the harrowing news. As the narrator paused she spoke thickly from her crowded mouth:

"Just wait till I finish this-here pig's trotter, an' ye'll hear some hollerin' as is hollerin'."

The Brute

"Everything shut up for the night, John?"

"Yes, all except you."

A tool dresser in Borger took out an accident insurance policy and then fell ill of pleurisy. He brought action against the insurance company and lost in the municipal court, which decided that pleurisy was not an accident, but a visitation of God. The superior courst reversed the finding on the ground that a visitation of God to a tool dresser in Borger was an accident.—Bridgeport Driller.

A recent movie comedy showed on the screen a bevy of shapely girls disrobing for a plunge in the "old swimming pool." They had just taken off shoes, hats, coats and were beginning on—a passing freight train dashing across the screen obscured the view. When it passed, the girls were frolicking in the water.

An old railroader sat through the show again and again. At length an usher tapped him on the shoulder.

"Aren't you ever going home?" he asked.

"Oh, I'll wait a while," was the answer. "One of these times that train's going to be late."

Mose went to the marriage license bureau and secured a license to marry Anna Belle Jones. After a few days he came back, saying he had changed his mind and wanted the name in the marriage license changed to Mary Jane Smith. The clerk said that he could not change the name, but that he would have to get another license for which the fee would be $2.00.

Mose scratched his head and thought a bit and then told the clerk that there wasn't $2.00 difference in them two gals,—to let the name be.

The minister called at the Jones' home one Sunday afternoon, and little Willie answered the bell.

"Pa ain't home," he announced. "He went over to the golf club."

"The minister's brow darkened, and Willie hastened to explain:

"Oh, he ain't gonna play any golf. Not on Sunday. He just went over for a few highballs and a little stud poker."—Public Service.

Easy to Find

Customer: "I see you have placed all the large berries on top."

Fruit Peddler: "Yes, lady. That saves you the trouble of hunting through the box for 'em."

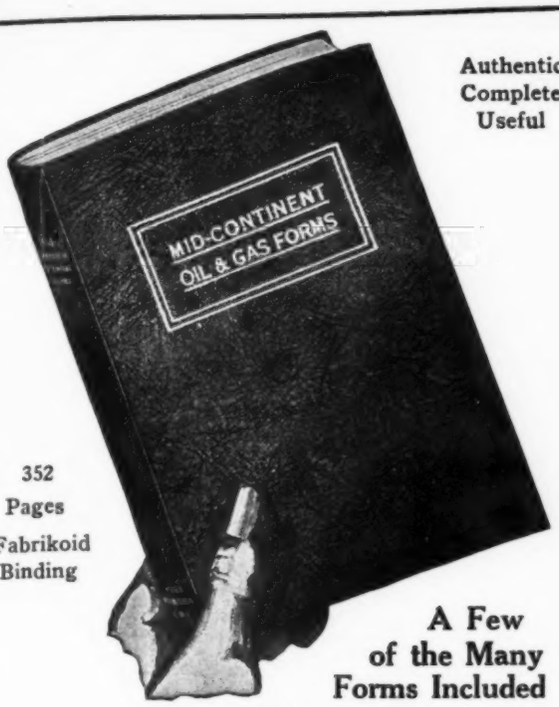
Sure, Dress for Dinner

The supercilious young man was being shown his room in a small seaside hotel.

"This will do," he said patronizingly "And-er-I suppose every one heah dresses for dinner"

"Oh, yes sir," replied the very young chambermaid, "meals in bed is charged extra"

Authentic Complete Useful



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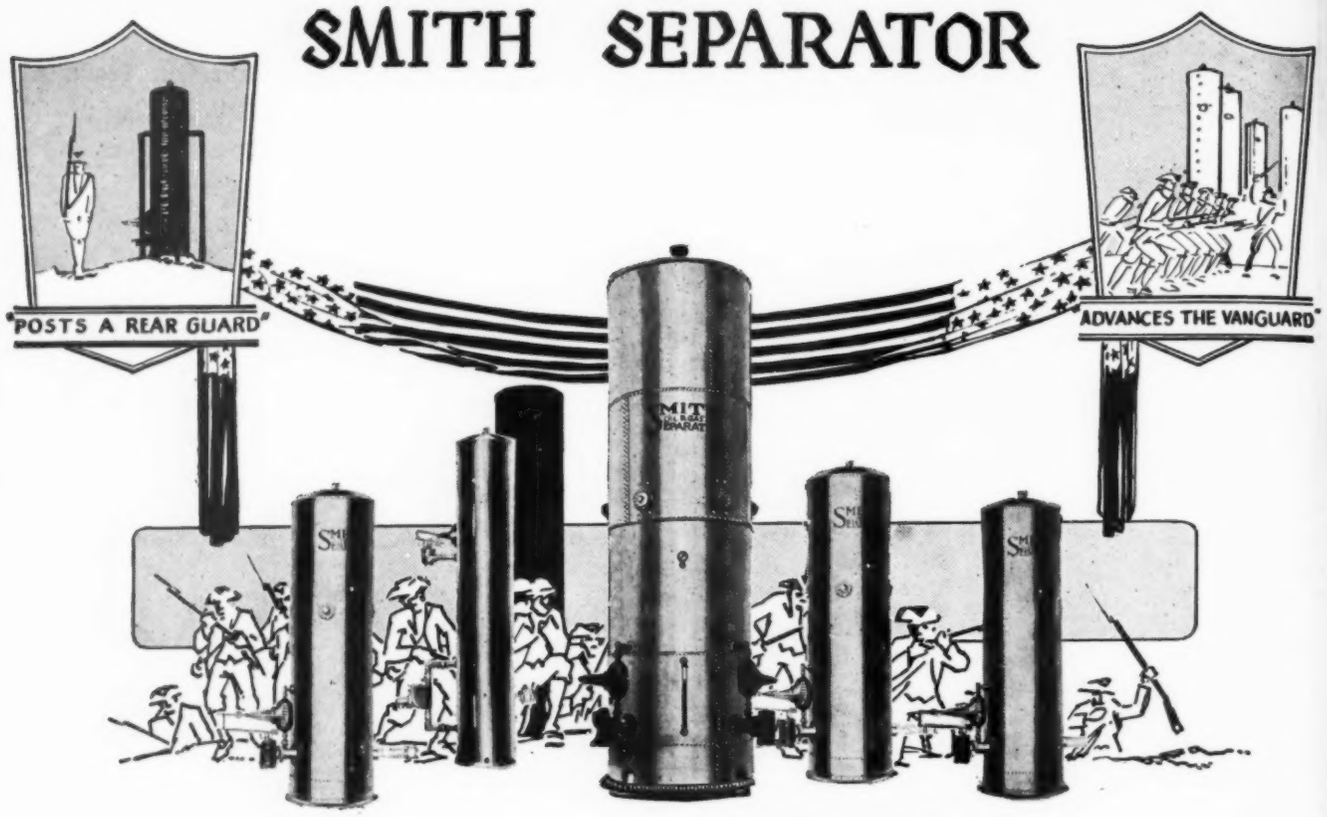

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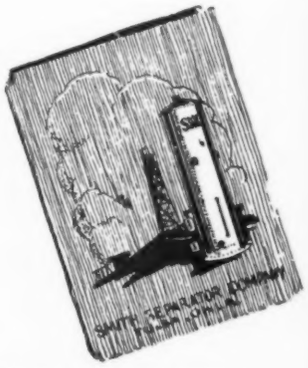

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